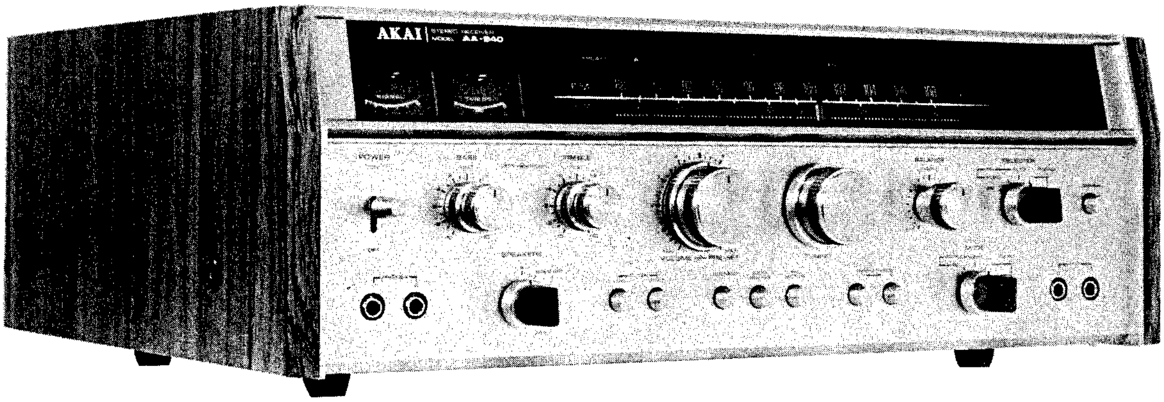

STEREO RECEIVER

MODEL AA-940

ALSO APPLICABLE TO MODEL AA-930 & AA-920
STEREO RECIEIVER

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SECTION 1

SERVICE MANUAL

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I. SPECIFICATIONS

An asterisk next to a figure indicates the minimum guaranteed performance.

§ AMPLIFIER SECTION

		AA-940	AA-930	AA-920
OUTPUT		75Wx2 *66Wx2 at 8Ω distortion 0.5%	50Wx2 *45Wx2 at 8Ω distortion 0.5%	32Wx2 *30Wx2 at 8Ω distortion 1%
FREQUENCY RESPONSE	PHONO	R1AA±1.5 dB	R1AA±1.5 dB	R1AA±1.5 dB
	AUX	20 Hz–1±3 dB 50 kHz–1^{+1}_{-2} dB	20 Hz–1±3 dB 50 kHz –1^{+1}_{-2} dB	20 Hz 0±3 dB 50 kHz–1^{+1}_{-2} dB
POWER BAND WIDTH		10 to 50,000 Hz distortion 0.5%	10 to 50,000 Hz distortion 0.5%	20 to 50,000 Hz distortion 1%
INPUT SENSITIVITY	PHONO	2.8 mV(–49±1.5 dB)	2.2 mV(–51±1.5 dB)	2.5 mV(–50±1.5 dB)
	MIC	2 mV(–52±1.5 dB)	1.5 mV(–54±1.5 dB)	2.5 mV(–50±1.5 dB)
	AUX	140 mV(–15±1.5 dB)	110 mV(–17±1.5 dB)	140 mV(–15±1.5 dB)
	TAPE	140 mV(–15±1.5 dB)	110 mV(–17±1.5 dB)	140 mV(–15±1.5 dB)
S/N RATIO	PHONO	Better than –33 dBm	Better than –33 dBm	Better than –35 dBm
	MIC	Better than –33 dBm	Better than –33 dBm	Better than –35 dBm
	AUX	Better than –43 dBm	Better than –43 dBm	Better than –45 dBm
	TAPE	Better than –43 dBm	Better than –43 dBm	Better than –45 dBm
RESIDUAL NOISE		Less than 2.5 mV (Less than –50 dBm)	Less than 2.5 mV (Less than –50 dBm)	Less than 1.4 mV (Less than –55 dBm)
TONE CONTROL	BASS	10±1.5 dB at 100 Hz –10±1.5 dB at 100 Hz	10±1.5 dB at 100 Hz –10±1.5 dB at 100 Hz	10±1.5 dB at 100 Hz –10±1.5 dB at 100 Hz
	TREBLE	10±1.5 dB at 10 kHz –10±1.5 dB at 10 kHz	10±1.5 dB at 10 kHz –10±1.5 dB at 10 kHz	10±1.5 dB at 10 kHz –10±1.5 dB at 10 kHz
LOUDNESS CONTROL		7±1.5 dB at 100 Hz 5±1.5 dB at 10 kHz	7±1.5 dB at 100 Hz 6±1.5 dB at 10 kHz	9±1.5 dB at 100 Hz 6±1.5 dB at 10 kHz
FILTER	LOW CUT FILTER	–6±1.5 dB at 50 Hz	–9±1.5 dB at 50 Hz	–8±1.5 dB at 50 Hz
	HIGH CUT FILTER	–9±1.5 dB at 10 kHz	–9±1.5 dB at 10 kHz	–9±1.5 dB at 10 kHz
AUDIO MUTE		–21±1.5 dB at 1 kHz	–20±1.5 dB at 1 kHz	
CROSS TALK		Better than 50 dB PHONO 1 kHz	Better than 50 dB PHONO 1 kHz	Better than 50 dB PHONO 1 kHz
L-R DEVIATION		Within 2 dB PHONO	Within 2 dB PHONO	Within 2.5 dB PHONO
RECORDING OUTPUT	PIN	150 mV(–14±2 dB)	125 mV(–16±2 dB)	140 mV(–15±2 dB)
	DIN	30 mV(–28±2 dB)	23 mV(–30±2 dB)	25 mV(–30±2 dB)

§ FM TUNER SECTION

FREQUENCY RANGE		J 75 to 91±1 MHz U 86 to 109±1 MHz	J 75 to 91±1 MHz U 86 to 109±1 MHz	J 75.4 to 91±1 MHz U 86.8 to 109.2±1 MHz
DIAL TRACKING ERROR		±250 kHz	±250 kHz	±250 kHz
SENSITIVITY (IHF)		1.7 μV *2.8 μV	1.8 μV *2.8 μV	1.9 μV *3.2 μV
SENSITIVITY DEVIATION		Within 3 dB	Within 3 dB	Within 3 dB
IMAGE REJECTION RATIO		J Better than 90 dB U Better than 85 dB	J,U Better than 85 dB	80 dB *J,U Better than 75 dB
IF REJECTION RATIO		J, U Better than 100 dB	J,U Better than 100 dB	100 dB *J,U Better than 85dB
CAPTURE RATIO (IHF)		1 dB *Less than 1.5 dB	Less than 1.5 dB	Less than 2.5 dB
LIMITING SENSITIVITY		Less than 8 dB	Less than 8 dB	Less than 8 dB
MUTING SENSITIVITY		20±3 dB	20±3 dB	23±3 dB
SELECTIVITY		Better than 80 dB	Better than 80 dB	Better than 70 dB
AM SUPPRESSION RATIO		Better than 45 dB	Better than 45 dB	Better than 45 dB
S/N RATIO		70 dB	70 dB	70 dB
	STEREO	*Better than 50 dB	*Better than 50 dB	*Better than 50 dB
	MONAURAL	*Better than 60 dB	*Better than 60 dB	*Better than 60 dB
DISTORTION FACTOR	STEREO	0.6% *Less than 1.5%	0.6% *Less than 1.5%	0.7% *Less than 1.5%
	MONAURAL	0.2% *Less than 0.5%	0.2% *Less than 0.5%	0.4% *Less than 0.7%
FREQUENCY RESPONSE		J –13±1 dB at 10 kHz U –11±1 dB at 10 kHz	J –13±1 dB at 10 kHz U –11±1 dB at 10 kHz	J –13±1 dB at 10 kHz U –11±1 dB at 10 kHz
STEREO SENSITIVITY		Less than 20 μV (Less than 26 dB)	Less than 20 μV (Less than 26 dB)	14 μV(23±3 dB)

STEREO INDICATOR SENSITIVITY	Less than 20 μV (Less than 26 dB)	Less than 20 μV (Less than 26 dB)	Less than 32 μV (Less than 30 dB)
STEREO SEPARATION	40 dB *Better than 35 dB	40 dB *Better than 35 dB	40 dB *Better than 33 dB
REJECTION RATIO	Better than 50 dB	Better than 50 dB	Better than 50 dB
L-R DEVIATION	Within 3 dB	Within 3 dB	Within 3 dB
RECORDING OUTPUT PIN	440 mV(-5±2 dB)	390 mV(-6±3 dB)	350 mV(-7±3 dB)
DIN	80 mV (-20±2 dB)	70 mV(-21±3 dB)	70 mV(-21±3 dB)

§ AM TUNER SECTION

FREQUENCY RANGE	525±5 kHz to 1,650±20 kHz	525±5 kHz to 1,650±20 kHz	525±5 kHz to 1,650±20 kHz
DIAL TRACKING ERROR	Within 5%	Within 2%	Within 2%
SENSITIVITY (IHF)	250 μV	250 μV	250 μV
SENSITIVITY DEVIATION	Within 6 dB	Within 6 dB	Within 6 dB
IMAGE REJECTION RATIO	85 dB *Better than 60 dB at 1 MHz	80 dB *Better than 60 dB at 1 MHz	80 dB *Better than 55 dB at 1 MHz
IF REJECTION RATIO	80 dB *Better than 60 dB at 1 MHz	75 dB *Better than 60 dB at 1 MHz	70 dB *Better than 55 dB at 1 MHz
SELECTIVITY	35 dB *Better than 30 dB±10 kHz	35 dB *Better than 30 dB±10 kHz	Better than 30 dB±10 kHz
S/N RATIO	50 dB *Better than 40 dB	50 dB *Better than 40 dB	50 dB *Better than 40 dB
DISTORTION FACTOR	0.8% *Less than 1.5%	0.8% *Less than 1.5%	0.8% *Less than 1.5%
FREQUENCY RESPONSE	-15 dB at 3 kHz	-15 dB at 3 kHz	-15 dB at 3 kHz
RECORDING OUTPUT PIN	140 mV(-15±2 dB)	140 mV(-15±2 dB)	140 mV(-15±2 dB)
DIN	27 mV(-29±2 dB)	27 mV(-29±2 dB)	27 mV(-29±2 dB)

§ OTHER

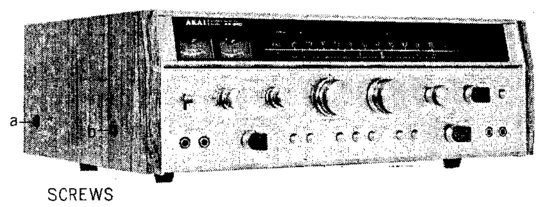
TRANSISTORS	2SA640(L)(M) . . . 2 2SA641(L)(M) . . . 1 2SA747(O)(Y) . . . 2 2SC711(E)(F) . . . 8 2SC922(L) . . . 2 2SC983(O)(Y) . . . 2 2SC1124(1)(2) . . . 6 2SD313(E)(F) . . . 2 2SA640(1)(P)(Q)(R) . . . 4 2SA706-5(1)(2) . . . 2 2SC495(O)(Y) . . . 1 2SC839(H) . . . 4 2SC945(Q)(R) . . . 2 2SC1116(O)(Y) . . . 2 2SC1312(F)(G) . . . 14	2SA640(L)(M) . . . 2 2SA641(L)(M) . . . 1 2SA747(O)(Y) . . . 2 2SC711(E)(F) . . . 8 2SC922(L) . . . 2 2SC983(O)(Y) . . . 2 2SC1124(1)(2) . . . 6 2SD313(E)(F) . . . 2 2SA640(1)(P)(Q)(R). . .4 2SA706-4(1)(2) . . . 2 2SC495(O)(Y) . . . 1 2SC839(H) . . . 4 2SC945(Q)(R) . . . 3 2SC1116(O)(Y) . . . 2 2SC1312(F)(G) . . 12	2SA706-3(1)(2) . . . 2 2SC711(E)(F) . . . 7 2SC922(L) . . . 2 2SC1111(O)(Y) . . . 4 2SC1312(G) . . . 10 2SA725(G) . . . 2 2SC839(H) . . . 4 2SC945(Q)(R) . . . 1 2SC1124(1)(2) . . . 4 2SD313(D)(E) . . . 2
F.E.T.	2SK30 Ⓨ (GR) . . . 1	2SK30 Ⓨ (GR) . . . 1	2SK30 Ⓐ (GR) . . . 2 2SK30 Ⓨ (GR) . . . 1
I.C.	LA1221 . . . 4 LA3300 . . . 1	LA1221 . . . 4 LA3300 . . . 1	LA1221 . . . 4 LA3300 . . . 1
DIODES	1N34A . . . 7 1N60P . . . 2 1OD1 . . . 1 1N60 . . . 5 WG599 . . . 1 1OD2 . . . 10 SR3AM-8 . . . 4	1N34A . . . 7 1N60P . . . 2 1OD1 . . . 1 1N60 . . 5 WG599 . . . 1 1OD2 . . . 10 SR3AM-8 . . . 4	1N34A . . . 7 1N60P . . . 2 1OD1 . . . 1 1N60 . . . 5 WG599 . . . 1 SR3AM-4 . . . 4
ZENER DIODES	WZ130 . . . 5	WZ130 . . . 5	WZ130 . . . 1
VARISTORS	STV-4H . . . 2	STV-4H . . . 2	STV-3H . . . 2
POWER SOURCE	100 to 240V 50/60 Hz 220V 50 Hz(WG)	100 to 240V 50/60 Hz 220V 50 Hz(WG)	100 to 240V 50/60 Hz 220V 50 Hz(WG & CEE) 120V 60 Hz(CSA)
POWER CONSUMPTION	MAX, 360W/440VA(4Ω) 1/3, 140W/165VA(4Ω)	MAX, 260W/320VA(4Ω) 1/3, 130W/155VA(4Ω)	180W
DIMENSIONS	483(W)x168(H)x398(D) mm (19"x6.6"x15.7")	483(W)x168(H)x398(D) mm (19"x6.6"x15.7")	454(W)x155(H)x330(D) mm (17.9"x6.1"x13")
WEIGHT	15.5 kg (34.1 lbs.)	15 kg (33 lbs.)	15 kg (33 lbs.)

NOTE: Specifications subject to change without notice.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Reassemble in reverse order.

1



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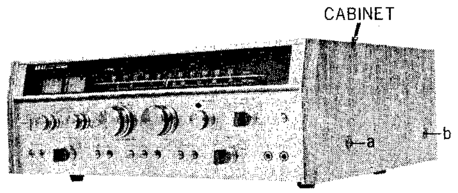

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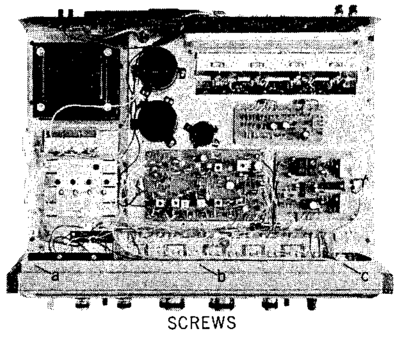
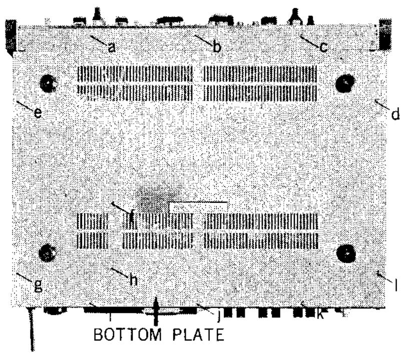
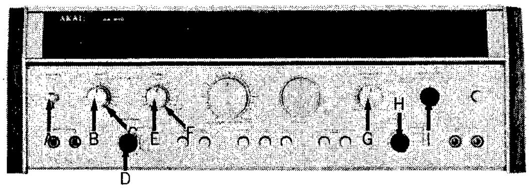


4

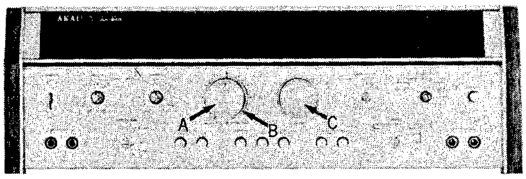

a
b
c
e
d
f
g
h
i
j
k
BOTTOM PLATE

5



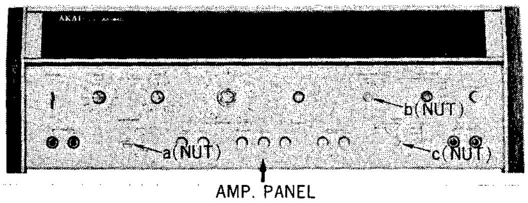
AMPLIFIER KNOBS

6



CONTROL KNOBS

7


b(NUT)
a(NUT)
c(NUT)
AMP. PANEL

III. ARRANGEMENT OF MAIN PARTS

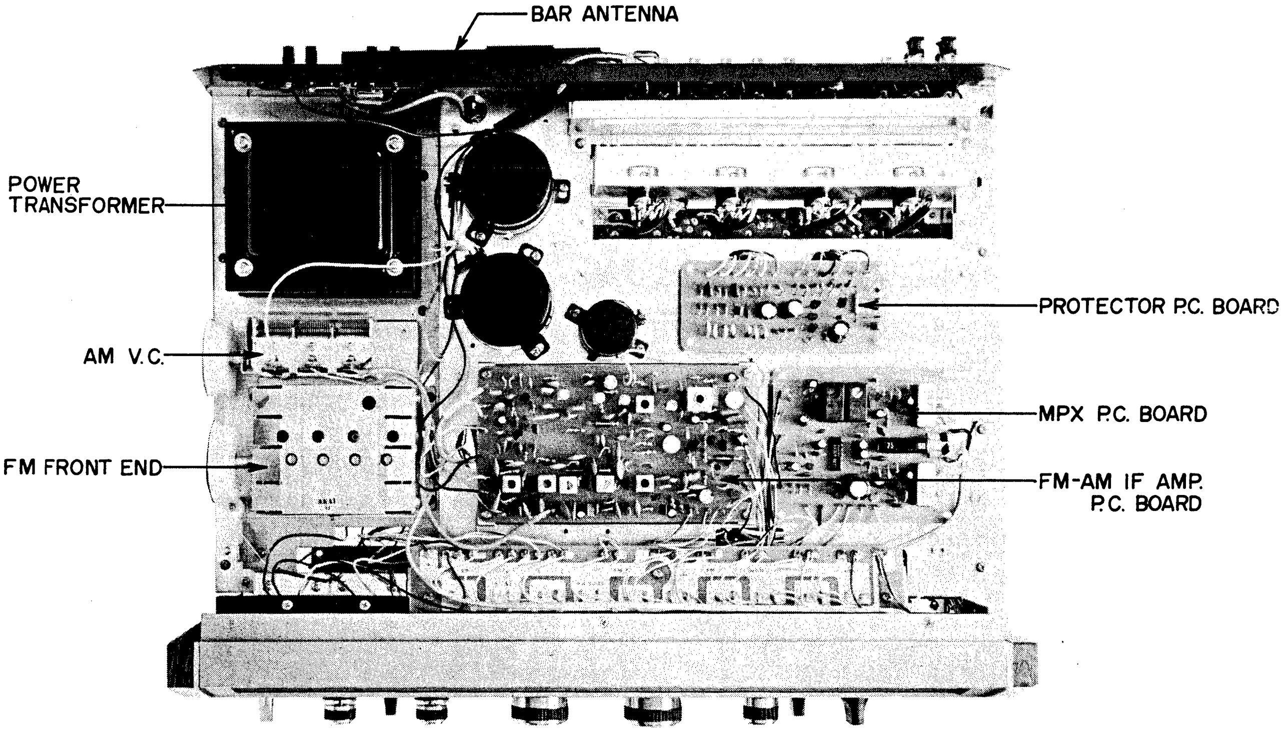

BAR ANTENNA
POWER TRANSFORMER
PROTECTOR P.C. BOARD
AM V.C.
MPX P.C. BOARD
FM FRONT END
FM-AM IF AMP. P.C. BOARD

Fig. 1

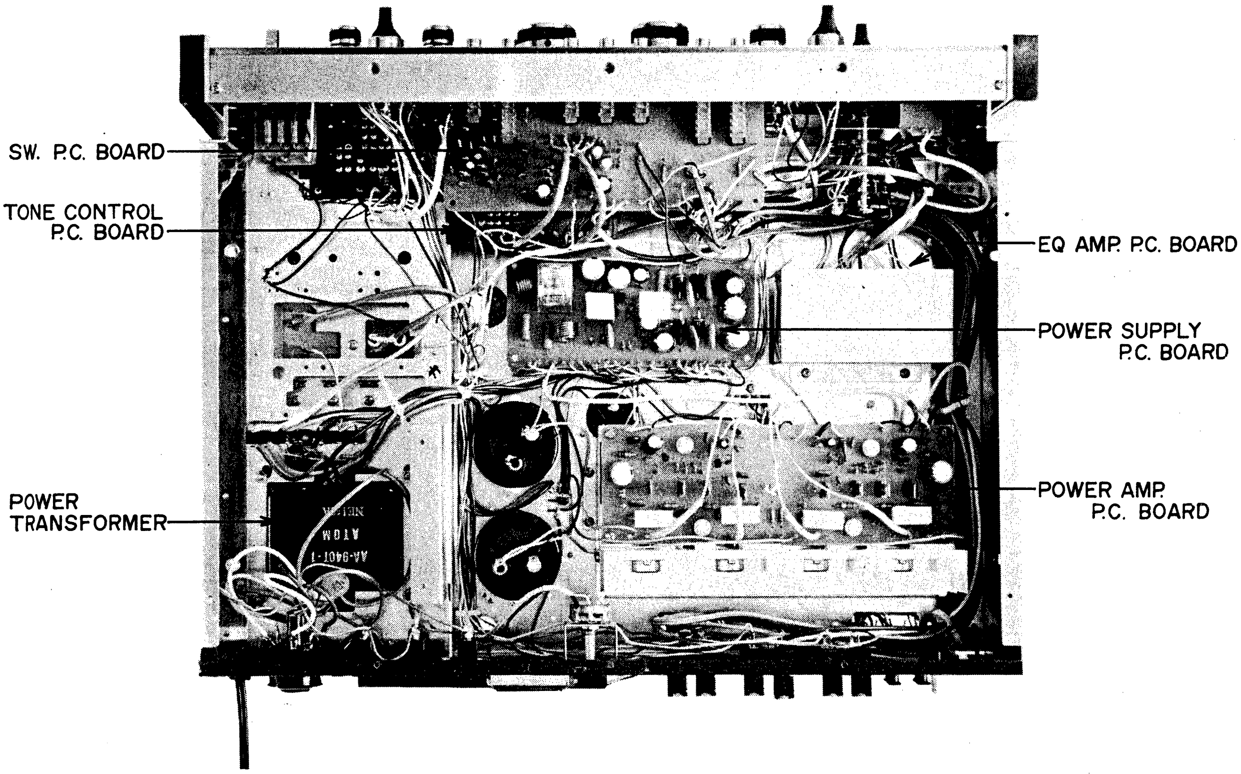

SW. P.C. BOARD
TONE CONTROL P.C. BOARD
EQ AMP. P.C. BOARD
POWER SUPPLY P.C. BOARD
POWER AMP. P.C. BOARD
POWER TRANSFORMER

Fig. 2

IV. NECESSARY MEASURING INSTRUMENTS

(For Adjustment of Models AA-940, AA-930, and AA-920)

Measuring Instrument	Model	For
AM-FM Radio IF Genescope	Meguro MSW-721C	FM and AM IF Adjustment
FM Standard Signal Generator	Meguro MSG-278G	FM Tracking, Sensitivity Adjustment
FM Stereo Modulator	Meguro MSG-211E	Stereo Separation Adjustment
AM Standard Signal Generator	Meguro MSG-221C	AM Tracking, Sensitivity Adjustment
AM Loop Antenna	Meguro MLA-1001B	AM Tracking, Sensitivity Adjustment
High Sensitivity V.T.V.M.	Kikusui 183E	Sensitivity, Stereo Separation Adjustment
Distortion Meter	Shibasoku 760C	Sensitivity Adjustment
Ampere Meter	Yokogawa 2011	Power Amp. Adjustment

Chart 1

V. CLASSIFICATION OF VARIOUS AMP. P. C. BOARDS

(Employed in Models AA-940, AA-930, and AA-920)

P.C. Board	AA-940	AA-930	AA-920
MPX P.C. BORD	94-5008	94-5008	94-5008
FM-AM IF AMP. P.C. BOARD	94-5009	94-5009	94-5009
PROTECTOR P.C. BOARD	94-5010	94-5010	
POWER SUPPLY P.C. BOARD	94-5011	94-5011	92-5004
EQ. AMP. P.C. BOARD	94-5012	94-5012	92-5003
POWER AMP. P.C. BOARD	94-5013	94-5013	92-5005
SWITCH P.C. BOARD	94-5020	93-5005	92-5011
TONE CONTROL P.C. BOARD	94-5025	94-5025	92-5010
DIAL ILLUMINATION P.C. BOARD	AA-5029	AA-5029	91-5035
DIMMER SW. P.C. BOARD	94-5023		
HEADPHONE P.C. BOARD	94-5022	94-5022	94-5022
MIC P.C. BOARD	94-5021	94-5021	94-5021

Chart 2

VI. FM TUNER SECTION ADJUSTMENTS

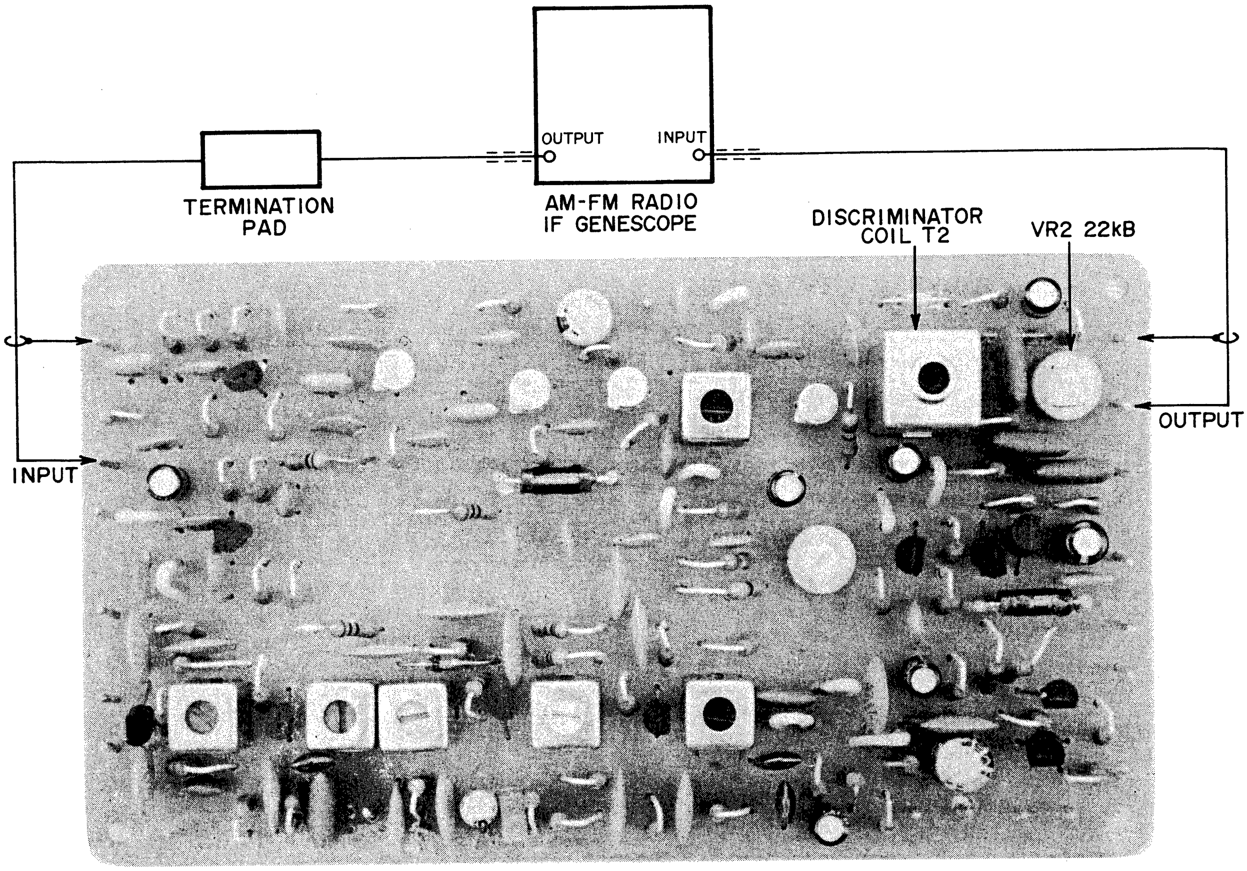

OUTPUT
INPUT
TERMINATION PAD
AM-FM RADIO IF GENESCOPE
DISCRIMINATOR COIL T2
VR2 22kB
OUTPUT
INPUT

Fig. 3 INSTRUMENT CONNECTIONS

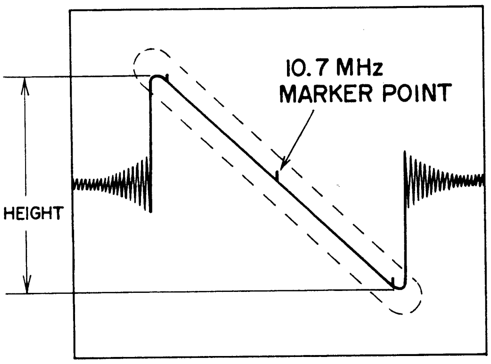

10.7 MHz MARKER POINT
HEIGHT

Fig. 4

Vertical Gain	0.3Vp-p to 1 cm
GENESCO Output Level	50 dB
Discriminator Coil	T2
S Curve Height	5 cm

Chart 3

1. FM IF CIRCUIT ADJUSTMENT

1) Connect the lead wires from an AM-FM Radio IF GENESCOPE (hereinafter referred to as GENESCO) to the input as well as the output of the FM-AM IF Amp. P.C. Board as shown in Fig. 3.
2) Set GENESCO to FM mode and adjust vertical gain (refer to Chart 3).
3) Set Receiver SELECTOR to FM AUTO, and tuning indicator needle to extreme right end of the dial. At this time confirm that a noise element does not enter the S Curve shown in Fig. 4.
4) Adjust output level of GENESCO (refer to Chart 3).
5) Manually center FM-AM IF Amp. P.C. Board semi-fixed resistor VR2 22 kB.
6) Adjust the upper and lower cores of Discriminator Coil so that the wave height value of the S Curve shown in Fig. 4 is maximum and the linearity of the part indicated by the dotted line is optimum. (Refer to Fig. 4 and Chart 3)

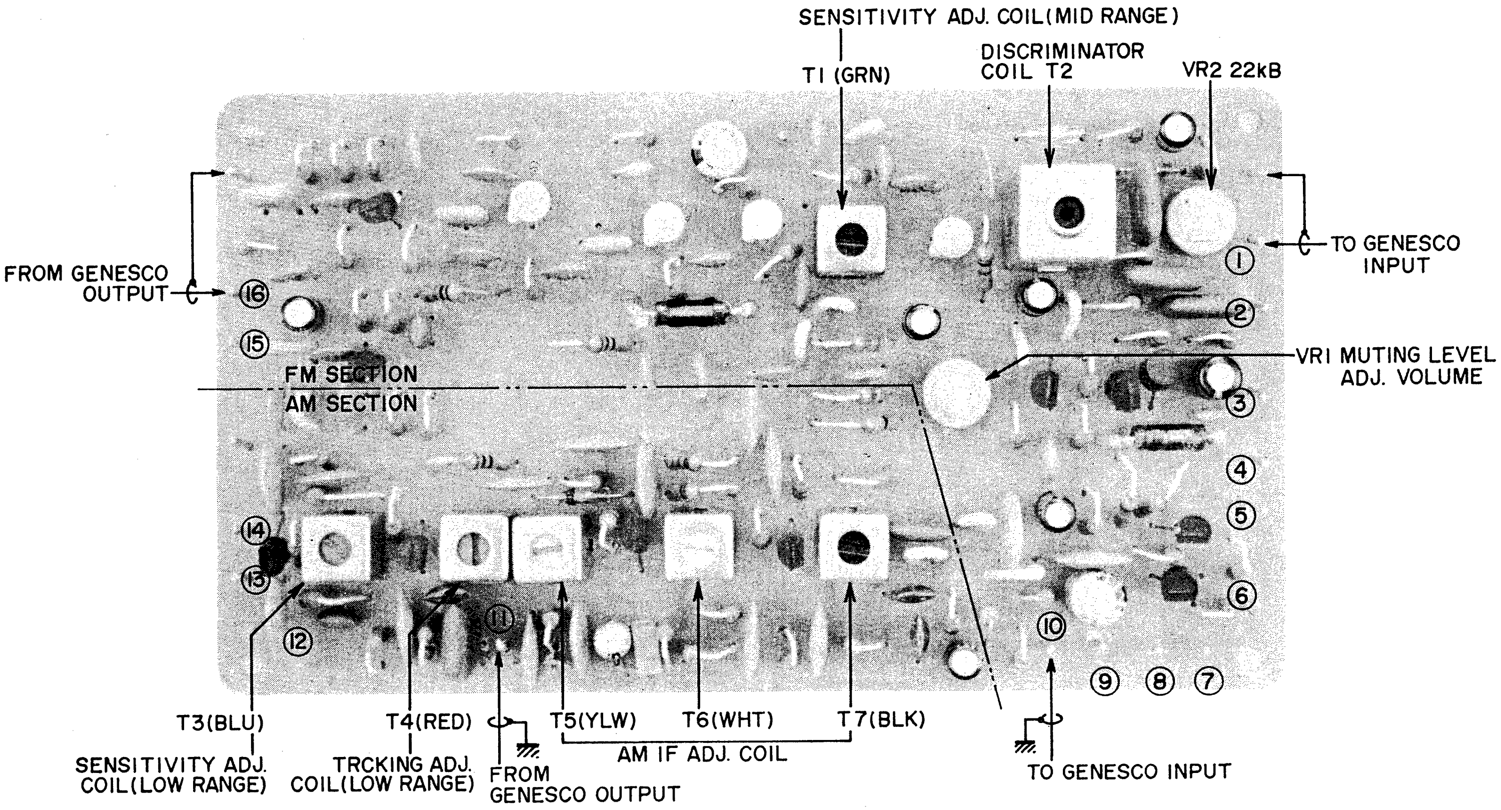

SENSITIVITY ADJ. COIL(MID RANGE)
T1 (GRN)
DISCRIMINATOR COIL T2
VR2 22kB
TO GENESCO INPUT
FROM GENESCO OUTPUT
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
VR1 MUTING LEVEL ADJ. VOLUME
FM SECTION
AM SECTION
T3(BLU)
SENSITIVITY ADJ. COIL(LOW RANGE)
T4(RED)
TRCKING ADJ. COIL(LOW RANGE)
FROM GENESCO OUTPUT
T5(YLW)
T6(WHT)
T7(BLK)
AM IF ADJ. COIL
TO GENESCO INPUT

Fig. 5 FM-AM IF AMP. P.C. BOARD 94-5009

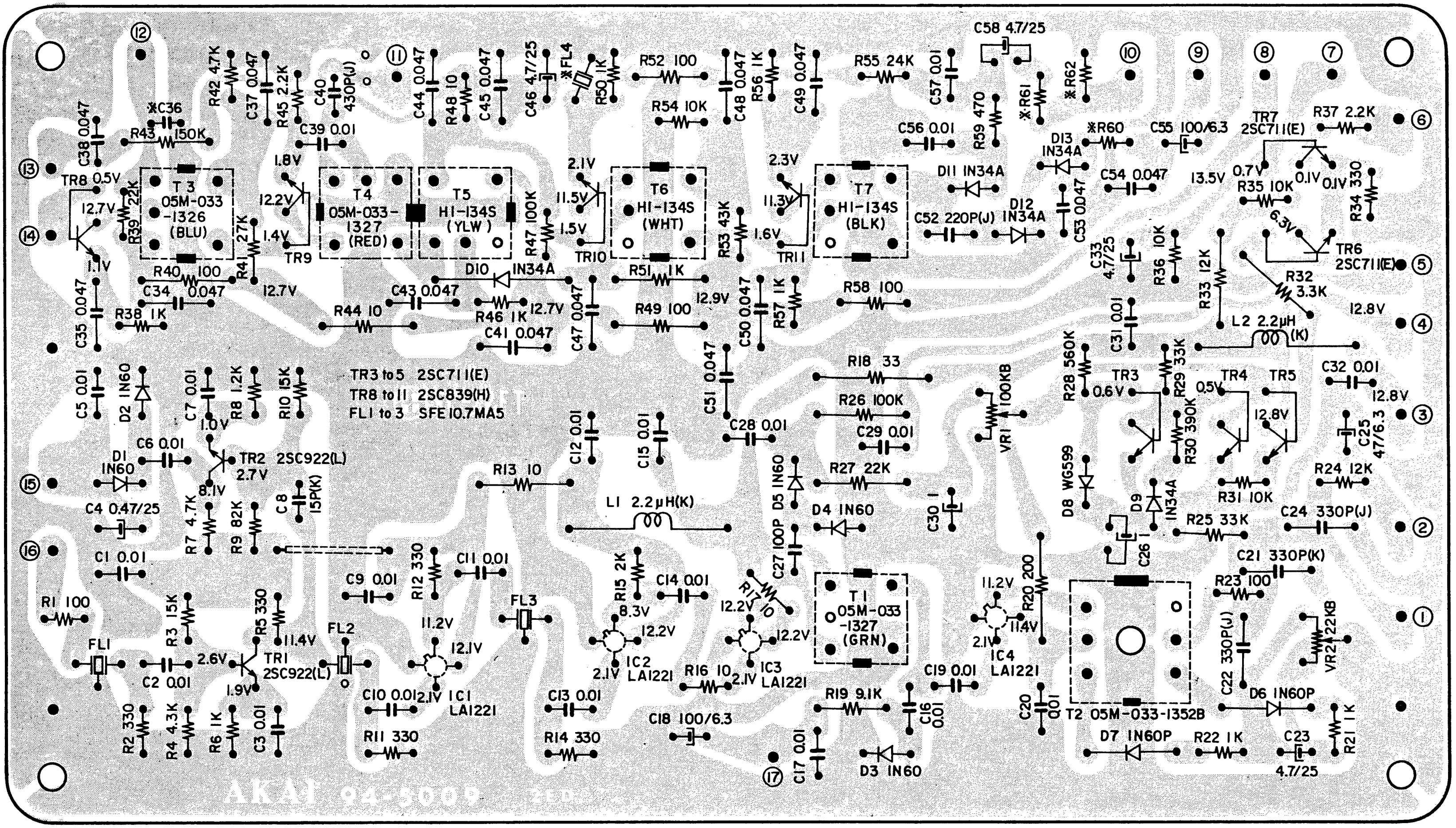
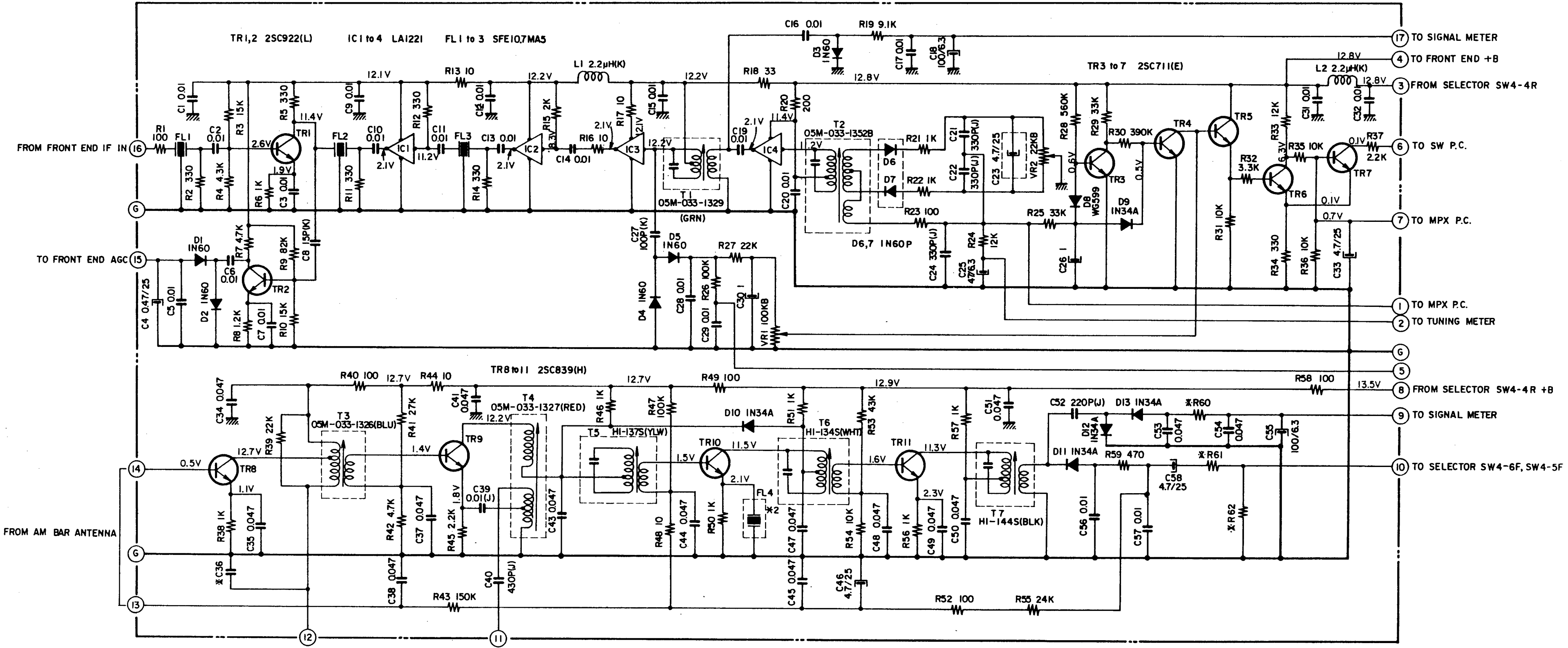

⑫
R42 4.7K
C37 0.047
R45 2.2K
C40 430P(J)
⑪
C44 0.047
R48 10
C45 0.047
C46 4.7/25
※FL4
R50 1K
R52 100
C48 0.047
R56 1K
C49 0.047
R55 24K
C57 0.01
C58 4.7/25
※R62
⑩
⑨
⑧
⑦
C38 0.047
※C36
R43 150K
C39 0.01
R54 10K
R59 470
※R61
C56 0.01
D13 IN34A
※R60
C55 100/6.3
TR7 2SC711(E)
R37 2.2K
⑥
⑬
TR8
0.5V
1.8V
2.1V
2.3V
T3 05M-033 -1326 (BLU)
T4 05M-033- 1327 (RED)
T5 H1-134S (YLW)
T6 H1-134S (WHT)
T7 H1-134S (BLK)
D11 IN34A
C54 0.047
13.5V
0.7V
0.1V
R35 10K
R34 330
12.7V
R39 22K
12.2V
11.5V
11.3V
D12 IN34A
C52 220P(J)
C53 0.047
⑭
1.4V
TR9
R47 100K
1.5V
TR10
R53 43K
1.6V
TR11
C33 4.7/25
R36 10K
6.3V
TR6 2SC711(E)
⑤
1.1V
R40 100
R41 27K
D10 IN34A
R51 1K
R33 12K
R32 3.3K
C34 0.047
12.7V
C43 0.047
R58 100
C35 0.047
R38 1K
R44 10
R46 1K
12.7V
C47 0.047
R49 100
12.9V
C50 0.047
R57 1K
C31 0.01
12.8V
④
C41 0.047
L2 2.2μH (K)
R28 560K
R29 33K
C5 0.01
D2 IN60
C7 0.01
R8 1.2K
R10 15K
TR3 to 5 2SC711(E)
TR8 to 11 2SC839(H)
FL1 to 3 SFE10.7MA5
C51 0.047
R18 33
R26 100K
VR1 100KB
TR3
0.6V
0.5V
TR4
TR5
C32 0.01
12.8V
1.0V
C12 0.01
C15 0.01
C28 0.01
C29 0.01
R30 390K
12.8V
C25 47/6.3
③
D1 IN60
C6 0.01
TR2 2SC922(L)
2.7V
R13 10
D5 IN60
R27 22K
D8 WG599
D9 IN34A
R31 10K
R24 12K
⑮
8.1V
C8 15P(K)
D4 IN60
C30 1
C4 0.47/25
R7 4.7K
R9 82K
L1 2.2μH(K)
C27 100P
C26 1
R25 33K
C24 330P(J)
②
⑯
C1 0.01
C11 0.01
R12 330
C9 0.01
R15 2K
C14 0.01
R17 10
T1 05M-033 -1327 (GRN)
R20 200
11.2V
C21 330P(K)
R23 100
R1 100
R3 15K
R5 330
FL2
11.4V
11.2V
FL3
8.3V
12.2V
12.2V
12.2V
11.4V
VR2 22KB
①
FL1
C2 0.01
2.6V
TR1 2SC922(L)
1.9V
12.1V
IC2 LA1221
2.1V
IC3 LA1221
2.1V
IC4 LA1221
2.1V
C22 330P(J)
C10 0.01
2.1V
IC1 LA1221
C13 0.01
R16 10
C19 0.01
R19 9.1K
C16 0.01
C20 0.01
T2 05M-033-1352B
D6 IN60P
R2 330
R4 4.3K
R6 1K
C3 0.01
R11 330
R14 330
C18 100/6.3
C17 0.01
D3 IN60
D7 IN60P
R22 1K
C23 4.7/25
R21 1K
⑰
AKAI 94-5009

Fig. 6 FM-AM IF AMP. P.C. BOARD 94-5009 (Rev. Side)

FM-AM IF AMP. P.C. BOARD 94-5009


TR1,2 2SC922(L)
IC1 to 4 LA1221
FL1 to 3 SFE10.7MA5
TR3 to 7 2SC711(E)
TR8 to 11 2SC839(H)
FROM FRONT END IF IN
TO FRONT END AGC
FROM AM BAR ANTENNA
TO SIGNAL METER
TO FRONT END +B
FROM SELECTOR SW4-4R
TO SW P.C.
TO MPX P.C.
TO MPX P.C.
TO TUNING METER
FROM SELECTOR SW4-4R +B
TO SIGNAL METER
TO SELECTOR SW4-6F, SW4-5F
TO RF VC
TO OSC. VC
R1 100
FL1
C1 0.01
C2 0.01
R2 330
R3 15K
R4 4.3K
R5 330
TR1
2.6V
11.4V
1.9V
R6 1K
C3 0.01
D1 1N60
D2 1N60
R7 4.7K
C6 0.01
TR2
R8 1.2K
C7 0.01
R9 82K
R10 15K
C8 15P(K)
C4 0.47/25
C5 0.01
FL2
R11 330
C9 0.01
C10 0.01
IC1
12.1V
2.1V
11.2V
R12 330
C11 0.01
FL3
R14 330
R13 10
C12 0.01
C13 0.01
IC2
12.2V
R15 2K
R16 10
C14 0.01
IC3
L1 2.2μH(K)
R17 10
C15 0.01
12.2V
C27 100P(K)
D5 1N60
D4 1N60
C28 0.01
R26 100K
C29 0.01
R27 22K
C30 1
VR1 100KB
T1 05M-033-1329 (GRN)
C16 0.01
D3 1N60
R19 9.1K
C17 0.01
C18 100/6.3
R18 33
12.8V
C19 0.01
IC4
R20 200
11.4V
C20 0.01
T2 05M-033-1352B
R21 1K
R22 1K
D6
D7
D6,7 1N60P
C21 330P(J)
C22 330P(J)
C23 4.7/25
VR2 22KB
R23 100
C24 330P(J)
R24 12K
C25 47/6.3
R28 560K
R29 33K
R30 390K
TR3
TR4
TR5
0.6V
0.5V
D8 WG599
D9 1N34A
R25 33K
C26 1
R31 10K
R32 3.3K
R33 12K
R35 10K
TR6
TR7
R37 2.2K
0.1V
0.7V
C31 0.01
C32 0.01
L2 2.2μH(K)
12.8V
R34 330
R36 10K
C33 4.7/25
C34 0.047
R40 100
12.7V
R44 10
R39 22K
T3 05M-033-1326(BLU)
R41 27K
C41 0.047
T4 05M-033-1327(RED)
12.2V
TR8
0.5V
1.1V
R38 1K
C35 0.047
※C36
TR9
1.4V
R42 4.7K
C37 0.047
R45 2.2K
1.8V
C38 0.047
C39 0.01(J)
C40 430P(J)
R43 150K
C43 0.047
R46 1K
R47 100K
T5 HI-137S(YLW)
12.7V
R49 100
D10 1N34A
TR10
1.5V
11.5V
2.1V
R48 10
C44 0.047
R50 1K
FL4 ※2
R51 1K
T6 HI-134S(WHT)
C47 0.047
C45 0.047
C46 4.7/25
12.9V
R53 43K
TR11
1.6V
11.3V
2.3V
R54 10K
C48 0.047
R57 1K
R56 1K
C49 0.047
C50 0.047
C51 0.047
T7 HI-144S(BLK)
R52 100
R55 24K
R58 100
13.5V
C52 220P(J)
D13 1N34A
※R60
D12 1N34A
C53 0.047
C54 0.047
C55 100/6.3
D11 1N34A
R59 470
※R61
C58 4.7/25
C56 0.01
C57 0.01
※R62

※ CAPACITORS LIST

	AA-940	AA-930	AA-920
C36	10P(J)	10P(J)	11P(J)

※ RESISTORS LIST

	AA-940.930	AA-920
R60	15K	32K
R61	91K	120K
R62	2.2K	1K

※2 FL4

J·A·US-A	US-B
BFB 455B-5	BFB 464A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V.(Z)

SCHEMATIC 1

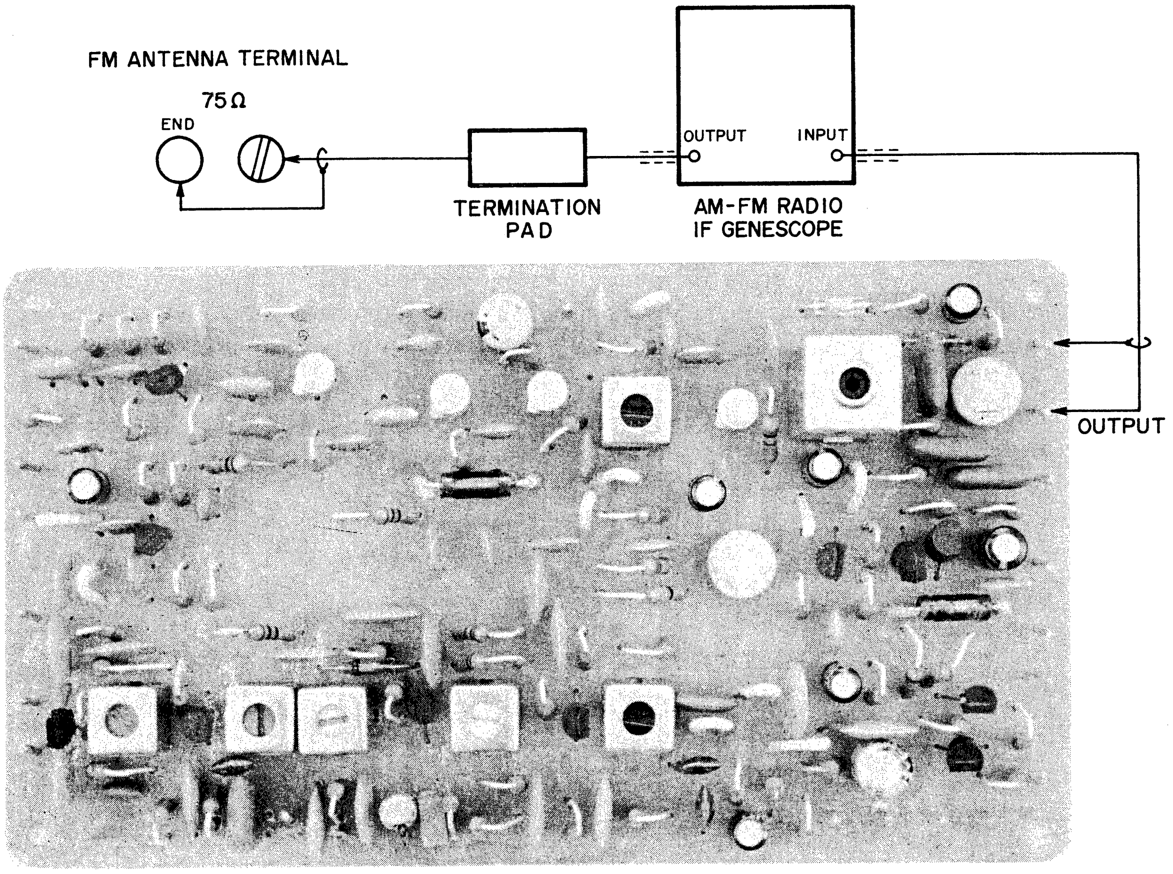

FM ANTENNA TERMINAL
75Ω
END
TERMINATION PAD
OUTPUT
INPUT
AM-FM RADIO IF GENESCOPE
OUTPUT

Fig. 7 INSTRUMENT CONNECTIONS

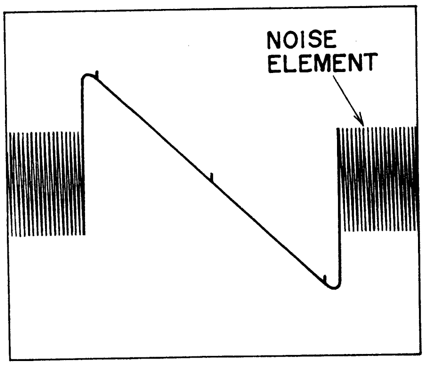

NOISE ELEMENT

Fig. 8

2. FRONT END AND FM IF MATCHING ADJUSTMENT

1) Connect the GENESCO lead wires to the 75Ω FM ANTENNA TERMINALS of the Receiver as well as to the FM IF Amp. P.C. Board output as shown in Fig. 7.
2) Set the GENESCO to FM mode and adjust the vertical gain of GENESCO to obtain a 10 mm amplitude of the 0.3Vp-p calibration voltage on GENESCO Screen and set the GENESCO attenuator to 100 dB.
3) Set Receiver SELECTOR to FM AUTO, and tuning indicator needle to extreme right end of the dial.
4) Adjust the upper core of Front End IF Coil (see Figs. 18,21) to obtain maximum wave height value of S Curve in Fig. 8, and adjust the lower core to obtain maximum noise level.
5) Make this adjustment again following FM Sensitivity Adjustment.

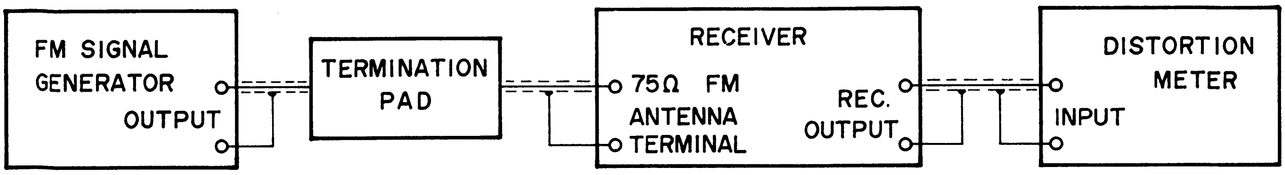


Fig. 9 INSTRUMENT CONNECTIONS

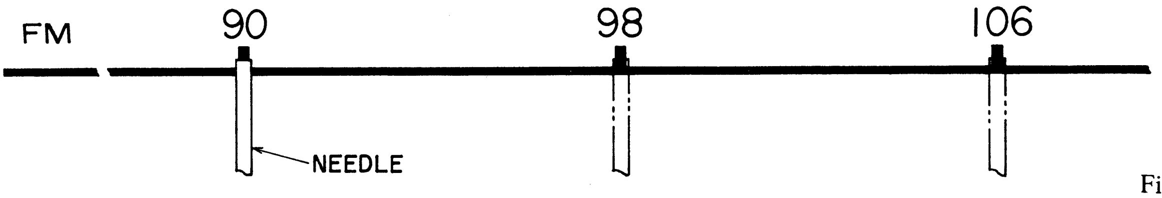


Fig. 10

FM S.G. Output	40 dB
Core (Low Range)	Lo
Trimmer Condenser (High Range)	TCo

Chart 4

Ref. In making Tracking Adjustments, set dial to following positions.

3. TRACKING ADJUSTMENT

1) Connect the various measuring instruments as shown in Fig. 9.
2) Set the oscillation frequency of the FM SIGNAL GENERATOR (hereinafter referred to FM S.G.) to 90 MHz (400 Hz 100% internal modulation), and set the output of the FM S.G. to 46 dB. (Refer to Chart 4)
3) Set Receiver SELECTOR to FM AUTO, and tuning indicator needle to 90 MHz. (Refer to Fig. 10)
4) Adjust Core Lo of Front End (Figs. 18,21) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 4)
5) Set the oscillation frequency of FM S.G. and tuning indicator needle to 106 MHz. (Refer to Fig. 10)
6) Adjust Trimmer Condenser TCo of Front End (Figs. 18,21) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 4)

4. SENSITIVITY ADJUSTMENT

1) Carry out these adjustments after the previously described Tracking Adjustments have been completed.
2) Measuring instrument connections are the same as described in Tracking Adjustments.
3) Set the oscillation frequency of the FM S.G. to 90 MHz (400 Hz, 100% internal modulation), set Receiver SELECTOR to FM AUTO, and set the tuning indicator needle to 90 MHz. (Refer to Fig. 10)
4) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
5) Adjust the cores of Front End (Figs. 18,21) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 5)
6) Set the oscillation frequency of FM S.G. and tuning indicator needle to 106 MHz. (Refer to Fig. 10)
7) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
8) Adjust Trimmer Condensers of Front End (Figs. 18,21) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 5)
9) Set the oscillation frequency of FM S.G. and the tuning indicator needle to 98 MHz. (Refer to Fig. 10)
10) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
11) Adjust the upper and lower cores of IF Coil in Front End (Figs. 18,21) and the lower core of FM-AM IF Amp. P.C. Board Discriminator Coil until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 5)
12) Repeat adjustments outlined in Items 3) through 11) at 90 MHz, 98 MHz and 106 MHz two or three times for highest sensitivity.

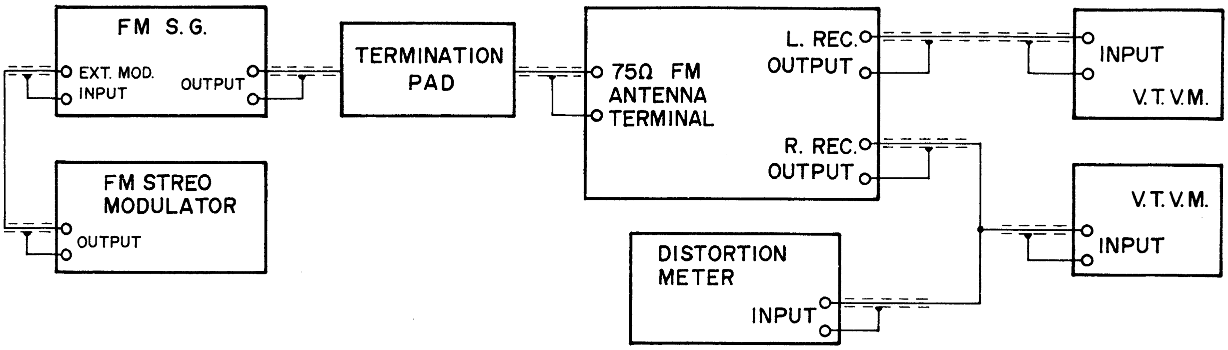


Fig. 11 INSTRUMENT CONNECTIONS

	AA-940	AA-930	AA-920
Core (Low Range)	LR, LR, LA	LR2, LR1, LA	LR2, LR1, LA
Trimmer Condenser (High Range)	TCR, TCR, TCA	TCR2, TCR1, TCA	TCR2, TCR1, TCA
IF Coil (Mid Range)	IF	IF	IF
Discriminator Coil (Mid Range)	T2	T2	T2

Chart 5

5. SIGNAL METER SENSITIVITY ADJUSTMENT

1) Supply a 98 MHz (400 Hz, 100% internal modulation) 60 dB signal to the Receiver from the S.G. Alignment is attained when the tuning meter indicator comes to the exact center of the meter.
2) Under the above conditions, adjust the core of Coil T1(GRN) of FM-AM IF Amp. P.C. Board to obtain maximum signal meter indication.

6. STEREO SEPARATION ADJUSTMENT

1) Connect the various measuring instruments as shown in Fig. 11.
2) Set the FM STEREO MODULATOR pilot signal 19 kHz to 10%, and the main signal 400Hz (left channel + right channel) to 90% modulation, and supply this composite signal (ratio 9:1) to the EXT MOD. input terminal of the FM S.G.
3) Set the FM S.G. oscillation frequency to 98 MHz, and the Attenuator to 66 dB.
4) Set Receiver SELECTOR to FM AUTO, and the tuning indicator needle to 98 MHz to receive the FM S.G. Signal.
5) Set the output signal selector of FM STEREO MODULATOR to SUB.
6) Adjust the cores of MPX AMP. P.C. Board 19 kHz Filter L1(BLK), and 38 kHz Filter L2(WHT) until the distortion factor is minimum. (Refer to Fig. 12)
7) Set the output signal selector of FM STEREO MODULATOR to left channel.
8) Adjust the MPX Adjustment Volume located on rear panel of the Receiver until the right channel output level is minimum.

7. TUNING METER CENTER ADJUSTMENT

After completing the adjustments outlined in Parts 1 through 4 of this manual, set the FM S.G. Attenuator to non-output condition, and adjust the upper core of FM-AM IF Amp. P.C. Board Discriminator Coil T2 shown in Fig. 5 until the tuning indicator needle of tuning meter comes to the center.
Then set Receiver dial to 98 MHz, supply a 98 MHz (400 Hz, 100% internal modulation) 66 dB signal from the FM S.G., and fine adjust the lower core of Discriminator Coil T2 for minimum distortion factor.

8. MUTING LEVEL ADJUSTMENT (STEREO INDICATOR SENSITIVITY ADJUSTMENT)

1) Connect the various measuring instruments as shown in Fig. 11.
2) Set the FM S.G. oscillation frequency to 98 MHz (400 Hz 100% internal modulation) and Attenuator to non-output condition.
3) Set receiver dial to 98 MHz.
4) Adjust FM-AM IF Amp. P.C. Board semi-fixed resistor VR1 68 kB so that when the attenuation decreases and the Attenuator scale is at 26 dB, signal output is emitted at both channels.

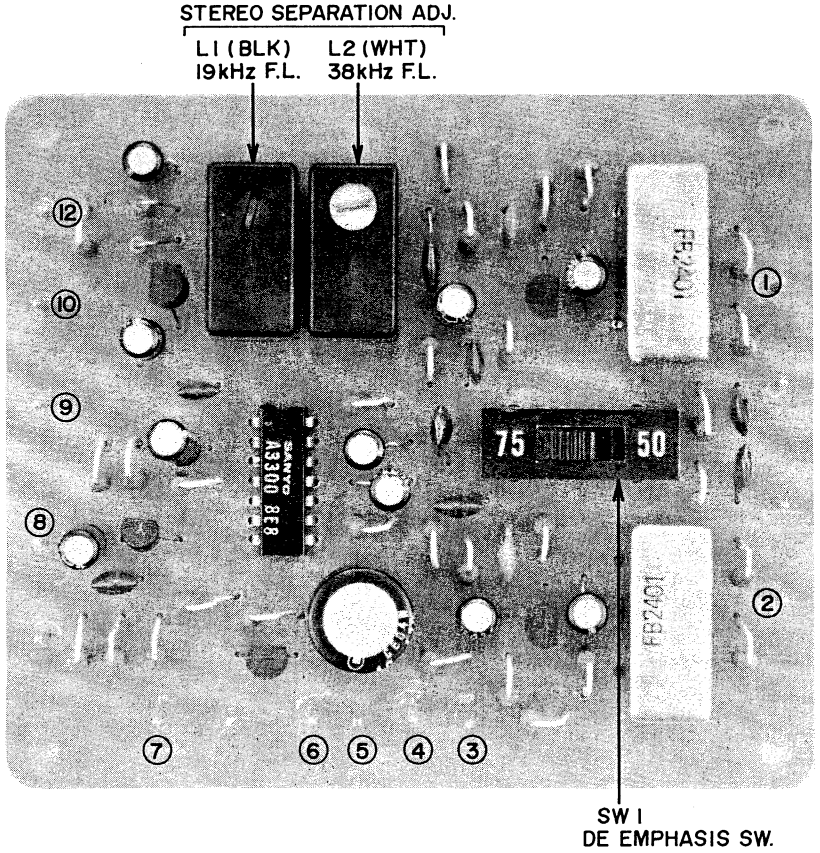

STEREO SEPARATION ADJ.
L1 (BLK) 19kHz F.L.
L2 (WHT) 38kHz F.L.
⑫
⑩
⑨
⑧
①
②
⑦
⑥
⑤
④
③
SANYO A3300 8E8
75
50
FB2401
FB2401
SW 1
DE EMPHASIS SW.

Fig. 12 MPX P.C. BOARD 94-5008

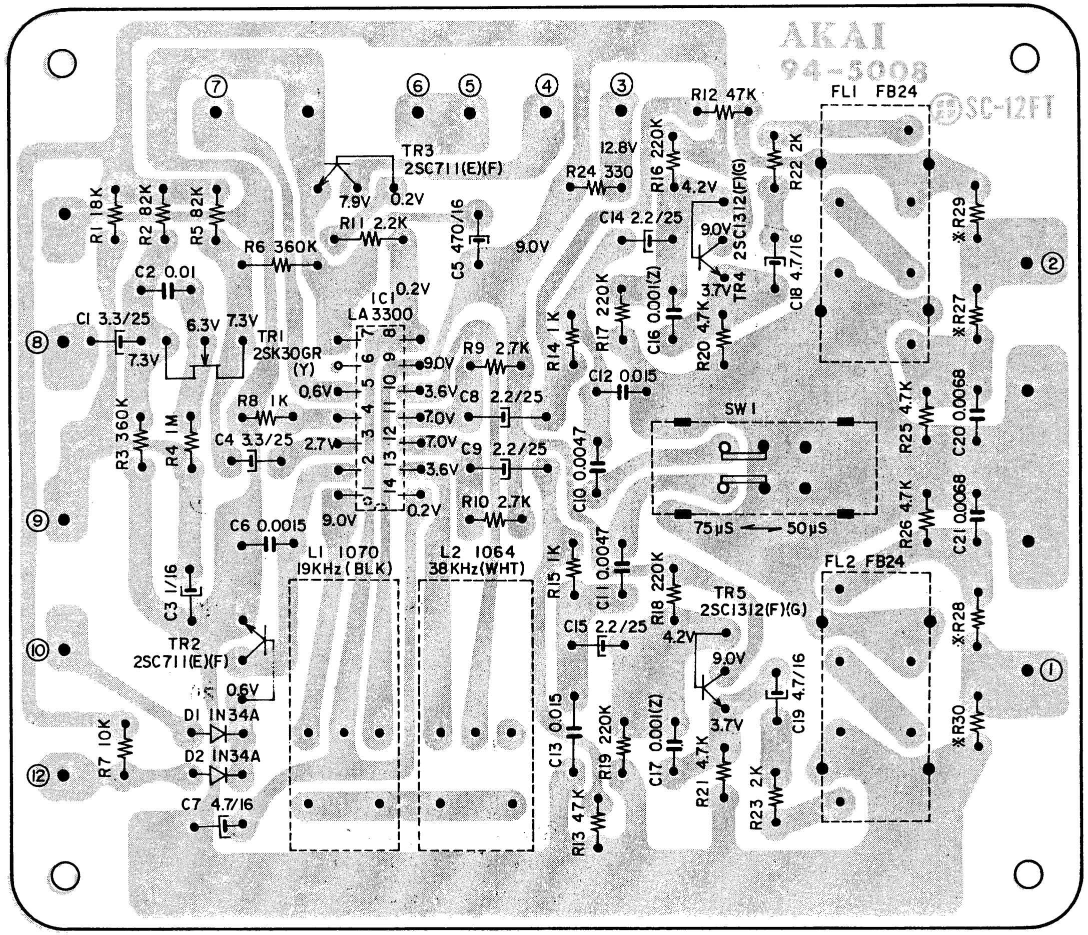
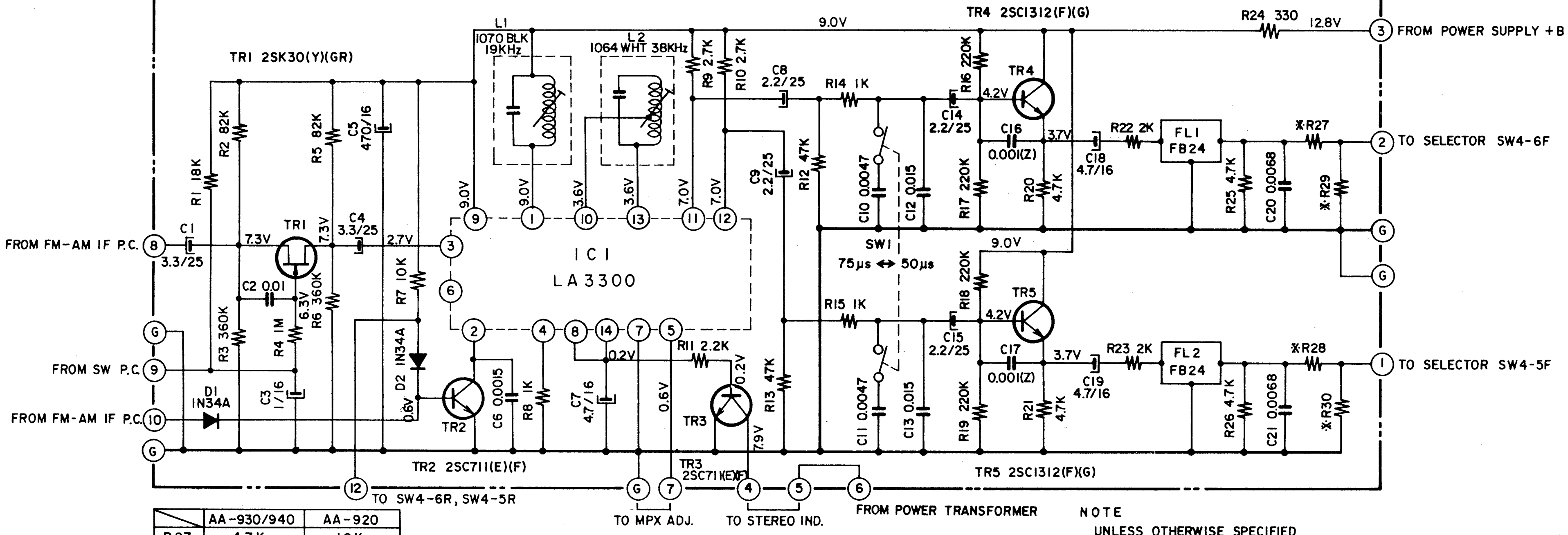

AKAI
94-5008
SC-12FT
⑦ ⑥ ⑤ ④ ③ ② ① ⑧ ⑨ ⑩ ⑫
TR3
2SC711(E)(F)
7.9V
0.2V
R1 18K
R2 82K
R5 82K
R11 2.2K
R6 360K
C5 470/16
9.0V
C2 0.01
IC1
LA3300
0.2V
C1 3.3/25
6.3V
7.3V
TR1
2SK30GR
(Y)
7.3V
0.6V
9.0V
3.6V
7.0V
7.0V
3.6V
2.7V
R8 1K
R3 360K
R4 1M
C4 3.3/25
R9 2.7K
C8 2.2/25
C9 2.2/25
R10 2.7K
0.2V
C6 0.0015
9.0V
L1 1070
19KHz (BLK)
L2 1064
38KHz (WHT)
C3 1/16
TR2
2SC711(E)(F)
0.6V
D1 1N34A
D2 1N34A
R7 10K
C7 4.7/16
R24 330
12.8V
R12 47K
R16 220K
4.2V
C14 2.2/25
9.0V
2SC1312(F)(G)
TR4
3.7V
R22 2K
C18 4.7/16
R14 1K
R17 220K
C16 0.001(Z)
R20 4.7K
C12 0.015
C10 0.0047
C11 0.0047
R15 1K
SW1
75μS ⟵ 50μS
FL1 FB24
※R29
※R27
R25 4.7K
C20 0.0068
R26 4.7K
C21 0.0068
FL2 FB24
※R28
※R30
R18 220K
TR5
2SC1312(F)(G)
C15 2.2/25
4.2V
9.0V
3.7V
C19 4.7/16
C13 0.015
R19 220K
C17 0.001(Z)
R21 4.7K
R23 2K
R13 47K

Fig. 13 MPX P.C. BOARD 94-5008 (Rev. Side)

MPX P.C. BOARD 94-5008



9.0V
TR4 2SC1312(F)(G)
R24 330
12.8V
3 FROM POWER SUPPLY +B
L1
1070 BLK
19KHz
L2
1064 WHT 38KHz
TR1 2SK30(Y)(GR)
R9 2.7K
R10 2.7K
C8
2.2/25
R14 1K
R16 220K
TR4
4.2V
C14
2.2/25
C16
0.001(Z)
3.7V
C18
4.7/16
R22 2K
FL1
FB24
※R27
2 TO SELECTOR SW4-6F
R1 18K
R2 82K
R5 82K
C5 470/16
9.0V
9.0V
3.6V
3.6V
7.0V
7.0V
C9 2.2/25
R12 47K
C10 0.0047
C12 0.015
R17 220K
R20 4.7K
R25 4.7K
C20 0.0068
※R29
G
FROM FM-AM IF P.C. 8
C1
3.3/25
7.3V
TR1
7.3V
C4
3.3/25
2.7V
IC1
LA3300
9
1
10
13
11
12
3
6
2
4
8
14
7
5
SW1
75μs ↔ 50μs
9.0V
R18 220K
TR5
4.2V
R15 1K
C15
2.2/25
C17
0.001(Z)
3.7V
R23 2K
C19
4.7/16
FL2
FB24
※R28
1 TO SELECTOR SW4-5F
G
C2 0.01
R3 360K
R4 1M
6.3V
R6 360K
R7 10K
D2 1N34A
G
FROM SW P.C. 9
D1
1N34A
C3
1/16
FROM FM-AM IF P.C. 10
G
0.6V
TR2
C6 0.0015
R8 1K
C7
4.7/16
0.2V
R11 2.2K
0.2V
0.6V
TR3
R13 47K
7.9V
C11 0.0047
C13 0.015
R19 220K
R21 4.7K
R26 4.7K
C21 0.0068
※R30
TR2 2SC711(E)(F)
TR3
2SC711(E)(F)
TR5 2SC1312(F)(G)
12
TO SW4-6R, SW4-5R
G
7
TO MPX ADJ.
4
5
6
TO STEREO IND.
FROM POWER TRANSFORMER

	AA-930/940	AA-920
R27	47K	12K
R28	47K	12K
R29	22K	1K
R30	22K	1K

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
※ MARK INDICATE RESISTORS ARE
DIFFERENT ACCORDING TO MODEL NUMBER

SCHEMATIC 2

VII. AM TUNER SECTION ADJUSTMENTS

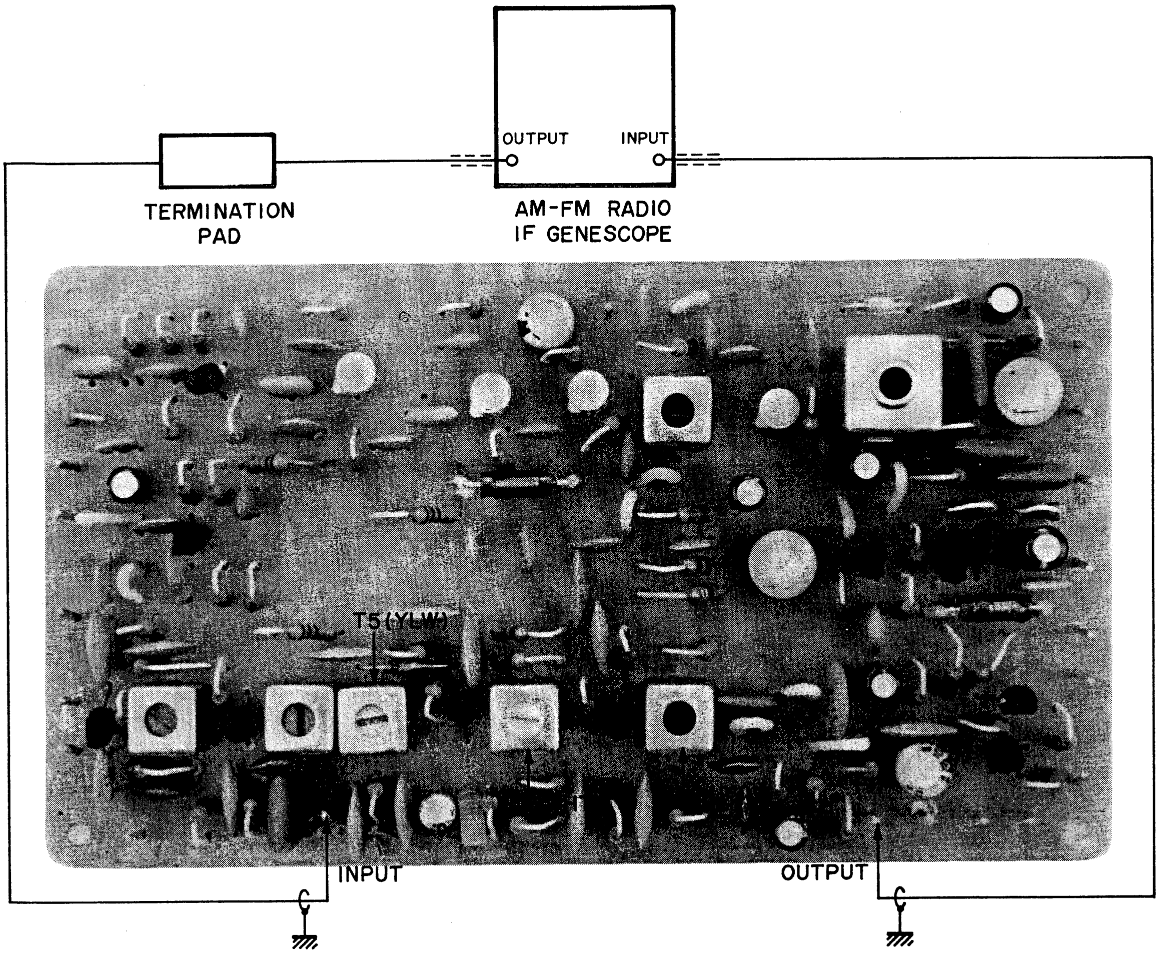


Fig. 14 INSTRUMENT CONNECTIONS

Vertical Gain	0.3Vp-p to 1 cm
GENESCO Output Level	60 dB
Single Peaked Curve Height	4 cm

Chart 6

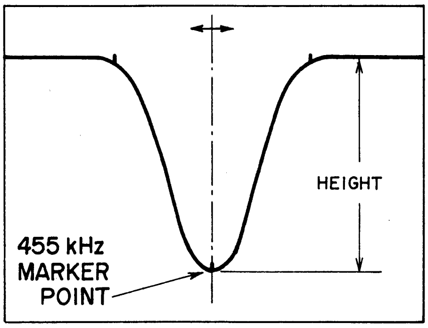


Fig. 15

1. AM IF CIRCUIT ADJUSTMENT

1) Connect the AM-FM Radio IF GENESCOPE (hereinafter referred to as GENESCO) lead wires to input terminal as well as output terminal of the FM-AM IF Amp. P.C. Board as shown in Fig. 14.
2) Set GENESCO to AM mode and adjust vertical gain. (Refer to Chart 6)
3) Set Receiver SELECTOR to AM and set the tuning indicator needle to extreme right end of the dial.

NOTE: A noise element should not enter the single peaked curve shown in Fig. 15.

4) Adjust output level of GENESCO. (Refer to Chart 6)
5) Adjust the cores of FM-AM IF Amp. P.C. Board IFT T7(BLK) (refer to Fig. 5) so that the 455 kHz marker point of the single peaked curve displays maximum amplitude as shown in Fig. 15.
6) Adjust the cores of FM-AM IF Amp. P.C. Board IFT T6(WHT) and T5(YLW) (refer to Fig. 5) so that the left and right rise up characteristics of the single peaked curve shown in Fig. 15 are identical from the center (indicated by the dotted line in the figure).
7) In making this adjustment the single peaked curve marker point will differ according to the rank of the ceramic filter.

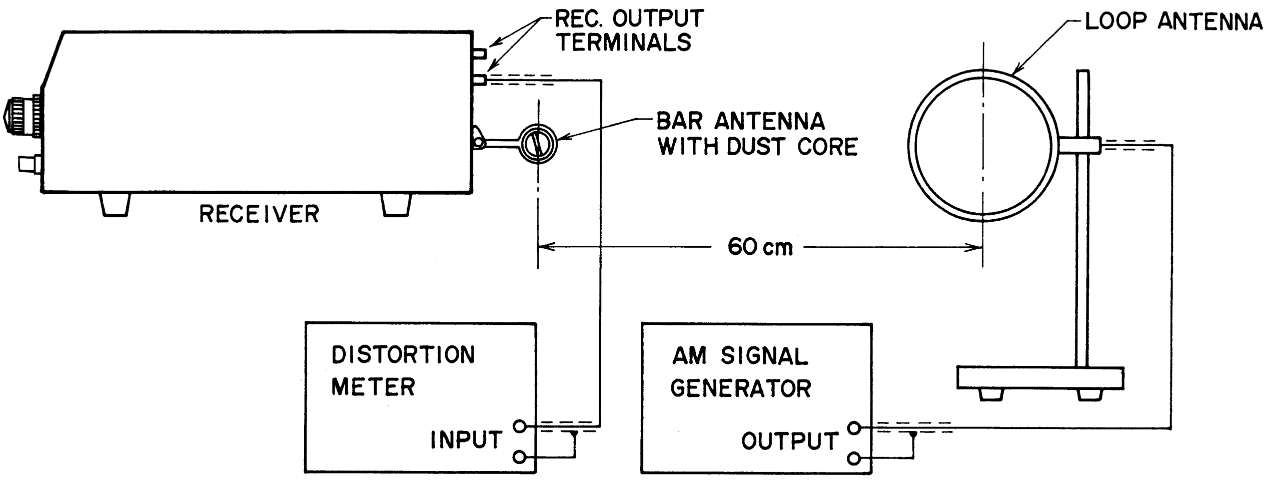


Fig. 16 INSTRUMENT CONNECTIONS

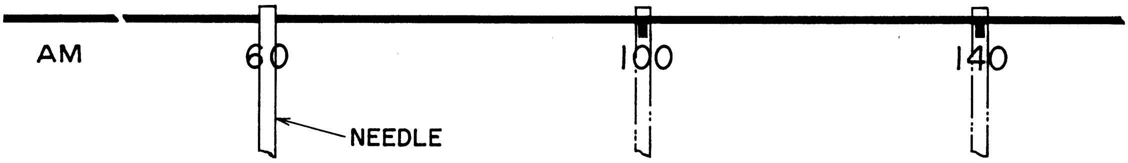


Fig. 17

2. TRACKING ADJUSTMENT

1) Connect the various measuring instruments as shown in Fig. 16.
2) Set the oscillation frequency of the AM SIGNAL GENERATOR (hereinafter referred to as AM S.G.) to 600 kHz (400 Hz 30% internal modulation) and adjust the AM S.G. Attenuator. (Refer to Chart 7)
3) Set Receiver SELECTOR to AM and tuning indicator needle to 600 kHz. (Refer to Fig. 17)
4) Adjust the core of FM-AM IF Amp. P.C. Board Tracking Adjustment Coil T4(RED) in Fig. 5 until the distortion meter level is maximum and the distortion factor is minimum.
5) Set the oscillation frequency of AM S.G. and tuning indicator needle of Receiver to 1,400 kHz. (Refer to Fig. 17)
6) Adjust Front End Trimmer Condenser in Figs. 20,21 until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 7)
7) Repeat adjustments outlined in Items 2) through 6) two or three times for minimum tracking error.

3. SENSITIVITY ADJUSTMENT

1) Carry out these adjustments after the previously described Tracking Adjustments have been completed.
2) Measuring instrument connections are the same as described in Tracking Adjustments. (Refer to Fig. 16)
3) Set the oscillation frequency of the AM S.G. to 600 kHz (400 Hz 30% internal modulation). Set Receiver SELECTOR to AM and the tuning indicator needle to 600 kHz. (Refer to Fig. 17)
4) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
5) Adjust dust core of Bar Antenna shown in Fig. 16 until the distortion meter level is maximum and the distortion factor is minimum.
6) Set the oscillation frequency of AM S.G. and tuning indicator needle of Receiver to 1,400 kHz. (Refer to Fig. 17)
7) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
8) Adjust Front End trimmer condensers in Figs. 20, 21 until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 8)

9) Set the oscillation frequency of AM S.G. and tuning indicator needle of Receiver to 1,000 kHz. (Refer to Fig. 17)
10) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
11) Adjust the core of FM-AM IF Amp. P.C. Board Coil T3(BLU) (refer to Fig. 5) until the distortion meter level is maximum and the distortion factor is minimum.
12) Repeat adjustment outlined in Items 3) through 11) at 600 kHz, 1,000 kHz and 1,400 kHz two or three times for highest sensitivity.

AM S.G. Output	60 dB
Core (Low Range)	T4
Trimmer Condenser (High Range)	TC1

Chart 7

Ref. In making Tracking Adjustments, set dial to following positions.

Bar Antenna Dust Core (Low Range)	Fig. 16
Trimmer Condenser (High Range)	TC2, TC3
RF Coil (Mid Range)	T3

Chart 8

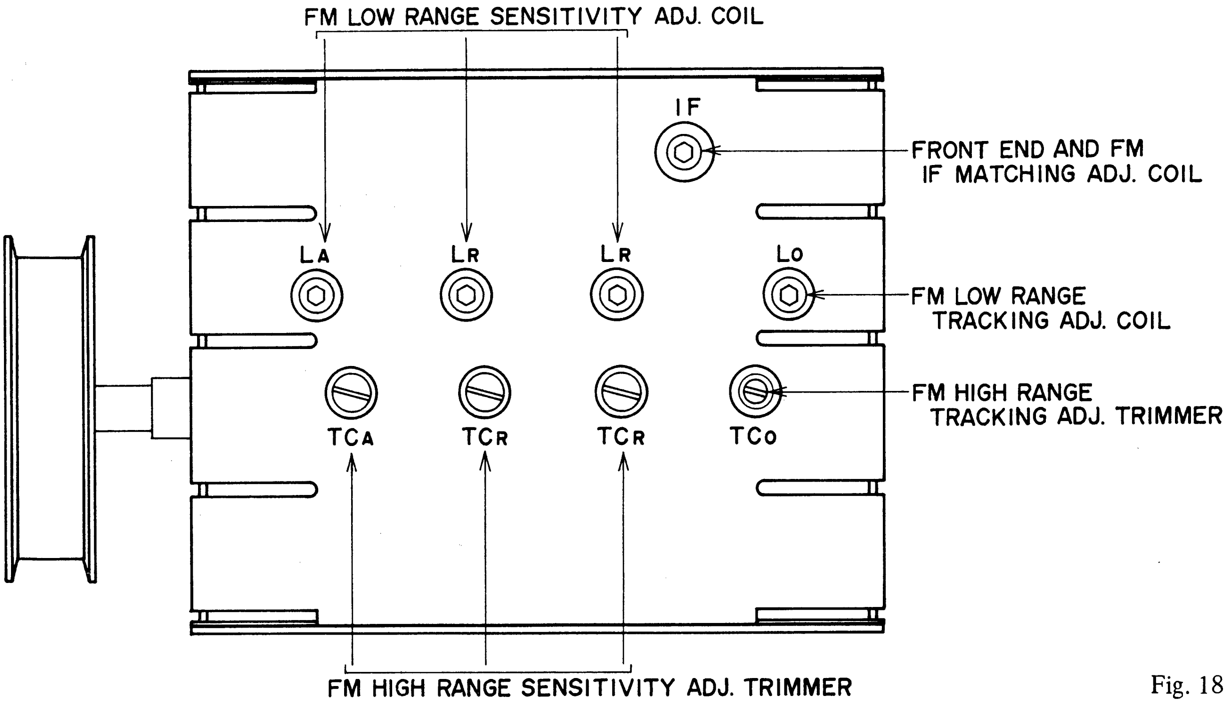

FM LOW RANGE SENSITIVITY ADJ. COIL
IF
FRONT END AND FM IF MATCHING ADJ. COIL
LA
LR
LR
Lo
FM LOW RANGE TRACKING ADJ. COIL
FM HIGH RANGE TRACKING ADJ. TRIMMER
TCA
TCR
TCR
TCo
FM HIGH RANGE SENSITIVITY ADJ. TRIMMER

Fig. 18

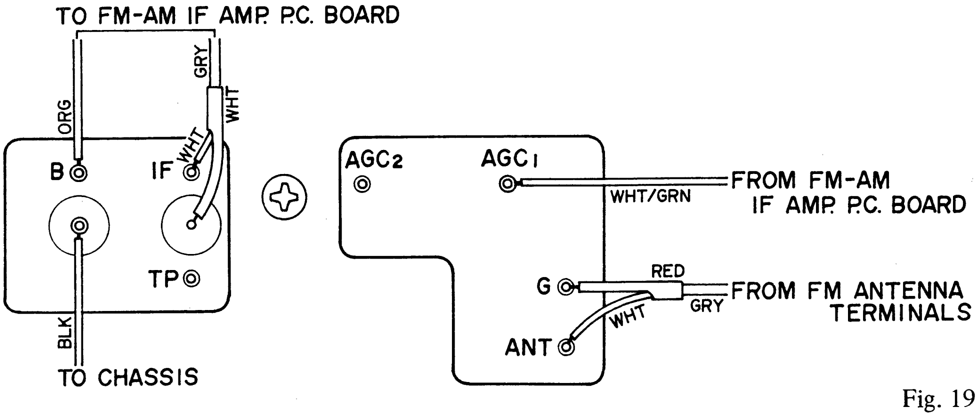

TO FM-AM IF AMP. P.C. BOARD
ORG
GRY
WHT
WHT
B
IF
TP
BLK
TO CHASSIS
AGC2
AGC1
WHT/GRN
FROM FM-AM IF AMP. P.C. BOARD
G
RED
GRY
WHT
ANT
FROM FM ANTENNA TERMINALS

Fig. 19

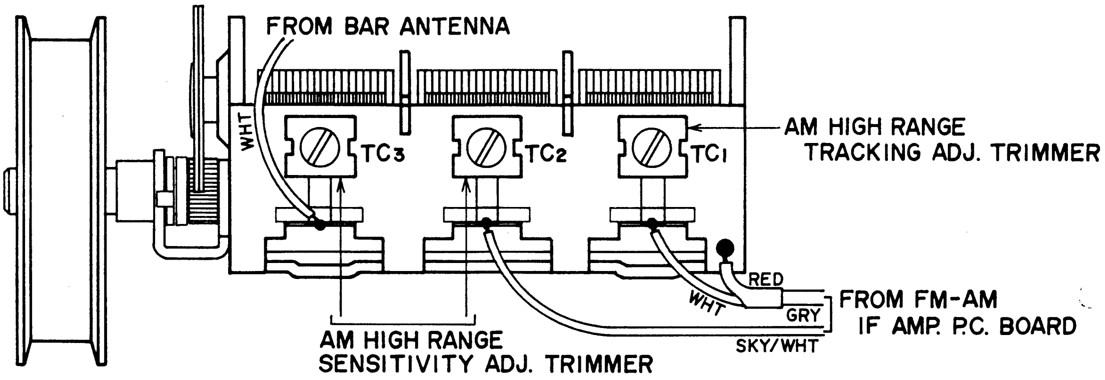

FROM BAR ANTENNA
WHT
TC3
TC2
TC1
AM HIGH RANGE TRACKING ADJ. TRIMMER
RED
WHT
GRY
SKY/WHT
FROM FM-AM IF AMP. P.C. BOARD
AM HIGH RANGE SENSITIVITY ADJ. TRIMMER

Fig. 20

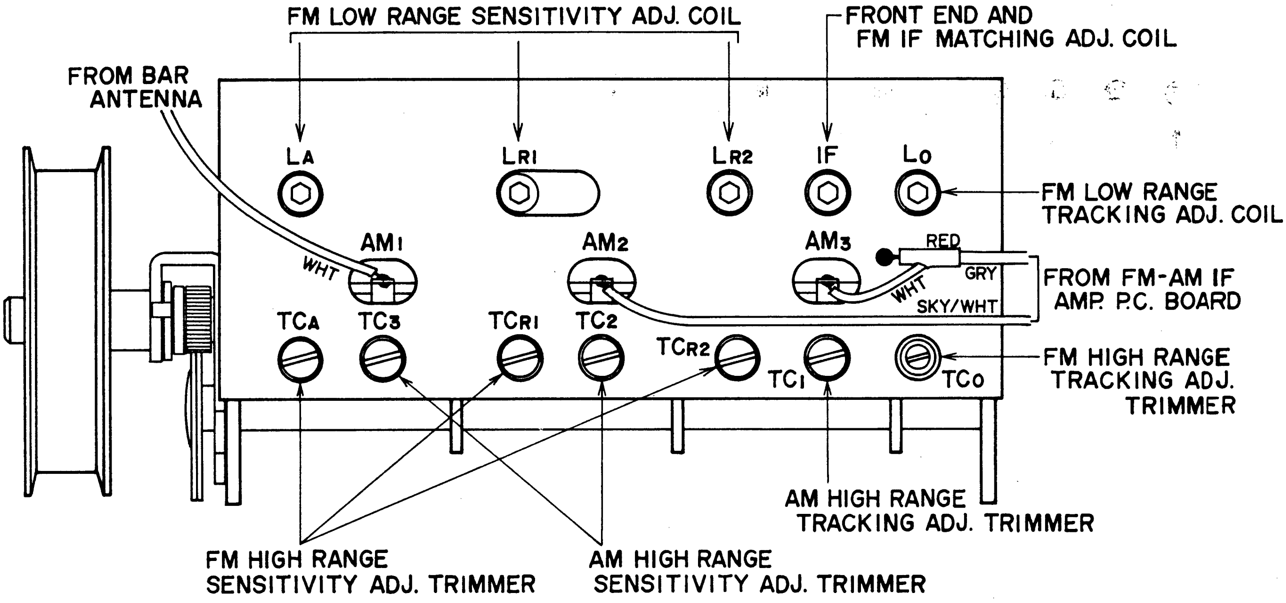

FM LOW RANGE SENSITIVITY ADJ. COIL
FRONT END AND FM IF MATCHING ADJ. COIL
FROM BAR ANTENNA
LA
LR1
LR2
IF
Lo
FM LOW RANGE TRACKING ADJ. COIL
AM1
AM2
AM3
WHT
RED
GRY
WHT
SKY/WHT
FROM FM-AM IF AMP. P.C. BOARD
TCA
TC3
TCR1
TC2
TCR2
TC1
TCo
FM HIGH RANGE TRACKING ADJ. TRIMMER
AM HIGH RANGE TRACKING ADJ. TRIMMER
FM HIGH RANGE SENSITIVITY ADJ. TRIMMER
AM HIGH RANGE SENSITIVITY ADJ. TRIMMER

Fig. 21

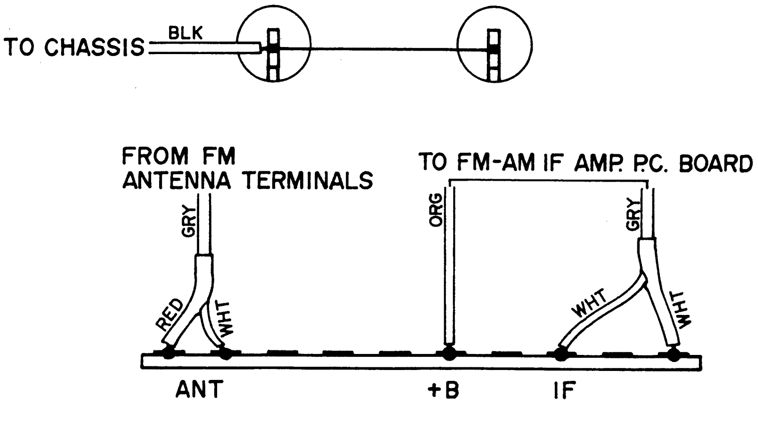

TO CHASSIS
BLK
FROM FM ANTENNA TERMINALS
TO FM-AM IF AMP. P.C. BOARD
GRY
RED
WHT
ORG
GRY
WHT
WHT
ANT
+B
IF

Fig. 22

VIII. POWER AMPLIFIER ADJUSTMENTS

(Models AA-940, AA-930)

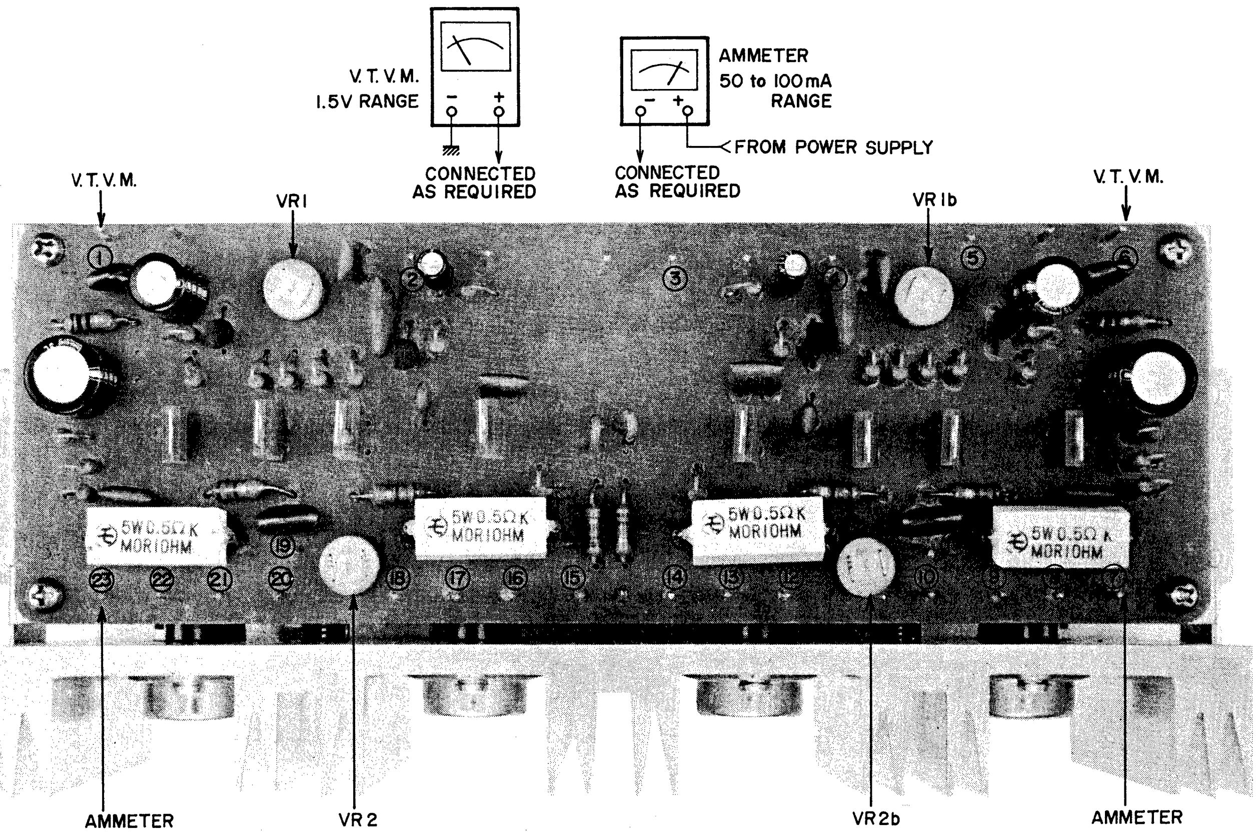

V.T.V.M.
1.5V RANGE
CONNECTED AS REQUIRED
AMMETER
50 to 100mA RANGE
FROM POWER SUPPLY
CONNECTED AS REQUIRED
V.T.V.M.
VR1
VR1b
V.T.V.M.
5W 0.5Ω K MORI OHM
AMMETER
VR2
VR2b
AMMETER

Fig. 23 POWER AMP. P.C. BOARD 94-5013

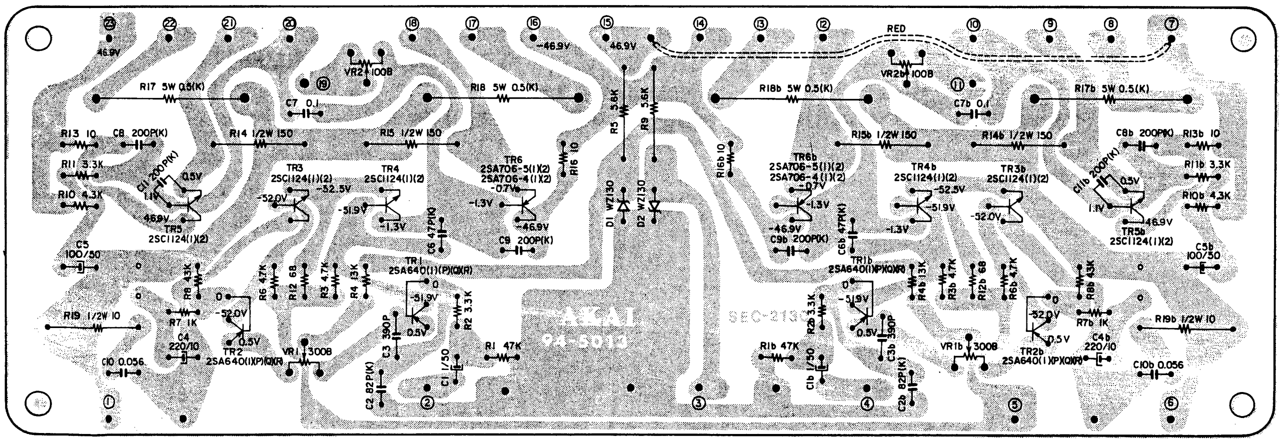

RED
R17 5W 0.5(K)
R18 5W 0.5(K)
R18b 5W 0.5(K)
R17b 5W 0.5(K)
VR2 100B
VR2b 100B
C7 0.1
C7b 0.1
R14 1/2W 150
R15 1/2W 150
R15b 1/2W 150
R14b 1/2W 150
TR3 2SC1124(1)(2)
TR4 2SC1124(1)(2)
TR6 2SA706-5(1)(2) 2SA706-4(1)(2)
TR6b 2SA706-5(1)(2) 2SA706-4(1)(2)
TR4b 2SC1124(1)(2)
TR3b 2SC1124(1)(2)
TR5 2SC1124(1)(2)
TR5b 2SC1124(1)(2)
TR1 2SA640(1)(P)(Q)(R)
TR1b 2SA640(1)(P)(Q)(R)
TR2 2SA640(1)(P)(Q)(R)
TR2b 2SA640(1)(P)(Q)(R)
D1 WZ130
D2 WZ130
VR1 300B
VR1b 300B
AKAI 94-5013
46.9V
-46.9V
-52.5V
-51.9V
-52.0V
-1.3V
-0.7V
0.5V

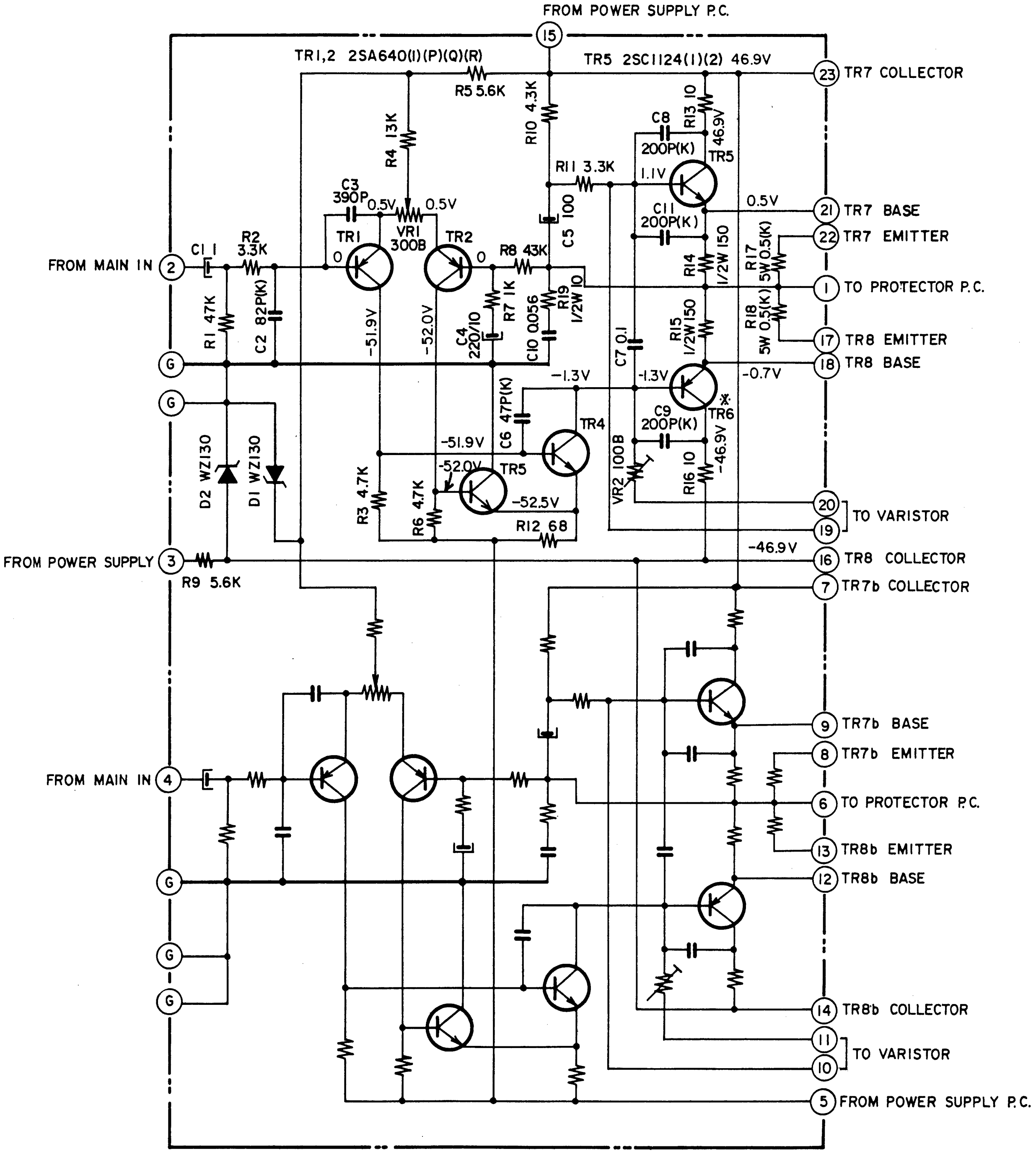
Fig. 24 POWER AMP. P.C. BOARD 94-5013 (Rev. Side)

1. POWER AMP. NON-INPUT CURRENT ADJUSTMENT (Refer to Fig. 22)

1) Disconnect the lead wires(Red) of terminals (7), (23) of Power Amp. P.C. Board from power supply.
2) Connect a 50 to 100 mA scale ampere meter between power supply and the Power Amp. P.C. Board terminals.
3) Adjust Power Amp. P.C. Board semi-fixed resistors VR2 100B(Left), and VR2b 100B(Right) shown in Fig. 23 to obtain a 40 mA ampere meter indication on both left and right channels.

2. ZERO ELECTRICAL POTENTIAL ADJUSTMENT (Refer to Fig. 23)

1) Set V.T.V.M. to 1.5V D.C. range and connect between terminals (1), (6) of Power Amp. P.C. Board and ground.
2) Adjust semi-fixed resistors VR1 300B(Left) and VR1b 300B(Right) shown in Fig. 23 to obtain a "O" V V.T.V.M. indication.


FROM POWER SUPPLY P.C.
15
TR1,2 2SA640(I)(P)(Q)(R)
TR5 2SC1124(I)(2) 46.9V
23 TR7 COLLECTOR
R5 5.6K
R10 4.3K
R4 13K
C8 200P(K)
R13 10
46.9V
TR5
R11 3.3K
1.1V
C3 390P
0.5V
0.5V
VR1 300B
TR1
TR2
0
0
C11 200P(K)
0.5V
21 TR7 BASE
22 TR7 EMITTER
C5 100
R8 43K
R14 1/2W 150
R17 5W 0.5(K)
FROM MAIN IN 2
C1 1
R2 3.3K
1 TO PROTECTOR P.C.
R1 47K
C2 82P(K)
-51.9V
-52.0V
R7 1K
C4 220/10
C10 0.056
R19 1/2W 10
C7 0.1
R15 1/2W 150
R18 5W 0.5(K)
17 TR8 EMITTER
18 TR8 BASE
G
-1.3V
-1.3V
-0.7V
G
C6 47P(K)
C9 200P(K)
TR6
TR4
D2 WZ130
D1 WZ130
-51.9V
-52.0V
TR5
VR2 100B
R16 10
-46.9V
R3 4.7K
R6 4.7K
-52.5V
20
19
TO VARISTOR
R12 68
FROM POWER SUPPLY 3
R9 5.6K
-46.9V
16 TR8 COLLECTOR
7 TR7b COLLECTOR
9 TR7b BASE
8 TR7b EMITTER
FROM MAIN IN 4
6 TO PROTECTOR P.C.
13 TR8b EMITTER
G
12 TR8b BASE
G
G
14 TR8b COLLECTOR
11
10
TO VARISTOR
5 FROM POWER SUPPLY P.C.

POWER AMP. P.C. BOARD 94-5013

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V.(J)
※ TR6 2SA706-5 (1)(2) AA-940
2SA706-4 (1)(2) AA-930

SCHEMATIC 3

IX. POWER AMPLIFIER ADJUSTMENTS

(Model AA-920)

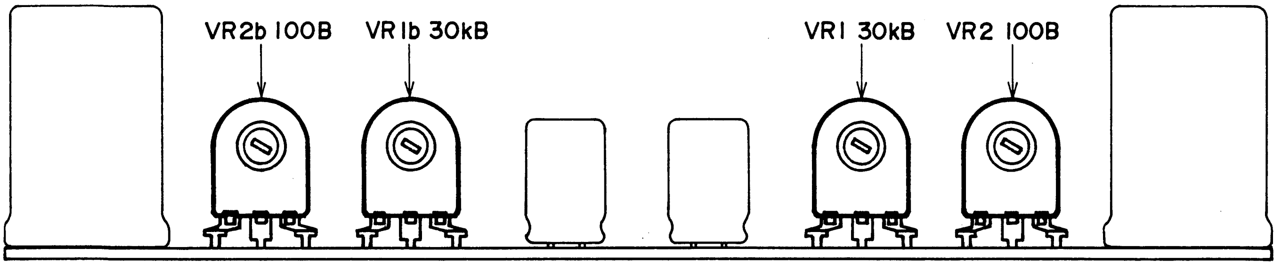


Fig. 25

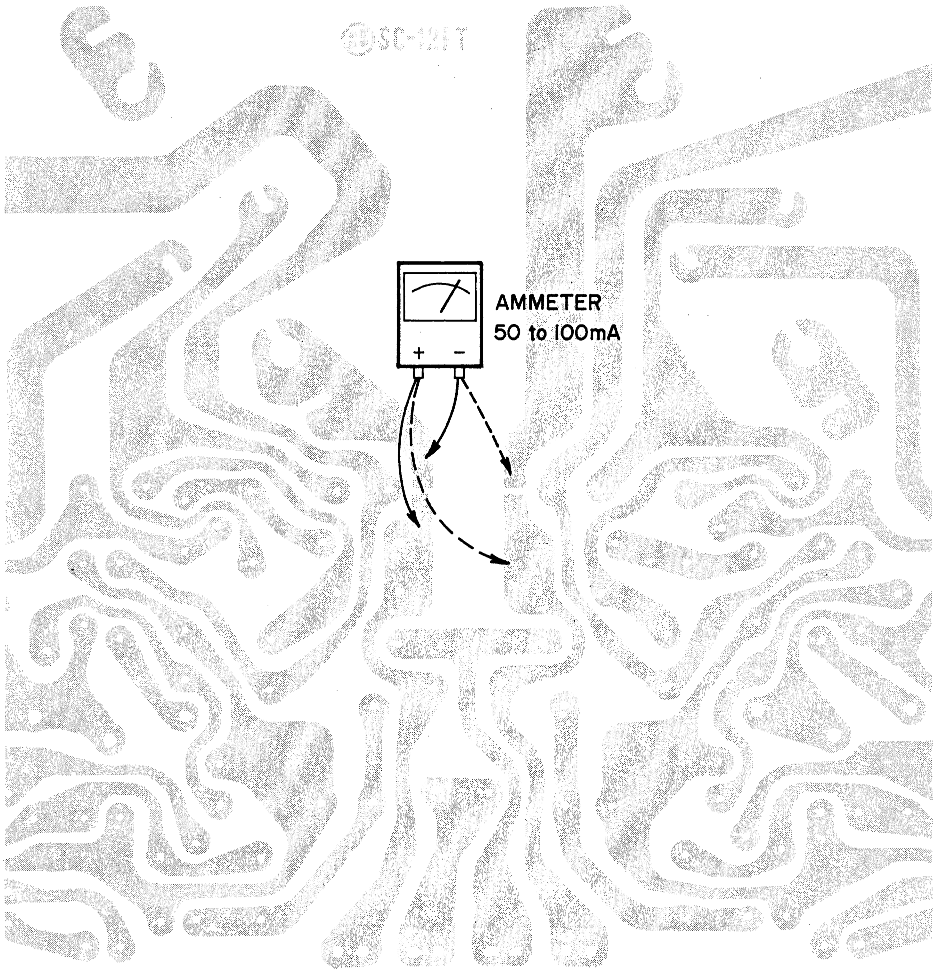


Fig. 26

1. POWER AMP. NON-INPUT CURRENT ADJUSTMENT (Refer to Figs. 26,27)

1) As shown in Fig. 27, remove solder from soldering point of Power Amp. P.C. Board.
2) Connect a 50 to 100 mA scale ampere meter to the place from which the solder was removed in Item 1-1).
3) Adjust semi-fixed resistors VR2 100B(Left) and VR2b 100B(Right) of Power Amp. P.C. Board shown in Fig. 26 to obtain a 40 mA ampere meter indication on both the left and right channels.

2. VOLTAGE ADJUSTMENT BETWEEN POWER TRANSISTORS C-E

1) Connect ampere meter to collector of P.C. Board Power Transistors TR6, TR6b shown in Fig. 27.
2) Adjust semi-fixed resistors VR1 30 kB(Left) and VRlb 30 kB(Right) of Power Amp. P.C. Board shown in Fig. 26 to obtain half the value of the power source voltage.

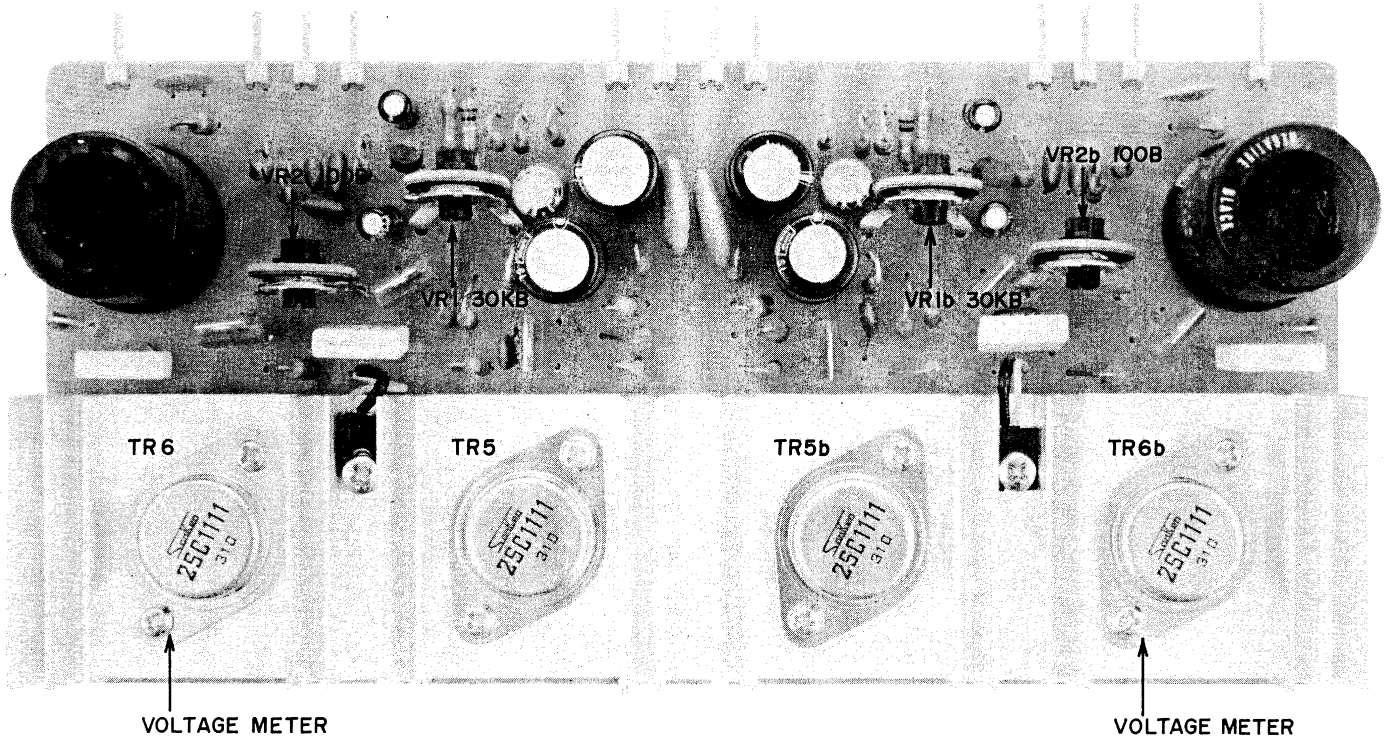

VR2 100B
VR1 30KB
VR1b 30KB
VR2b 100B
TR6
TR5
TR5b
TR6b
2SC1111
VOLTAGE METER
VOLTAGE METER

Fig. 27 POWER AMP. P.C. BOARD 92-5005

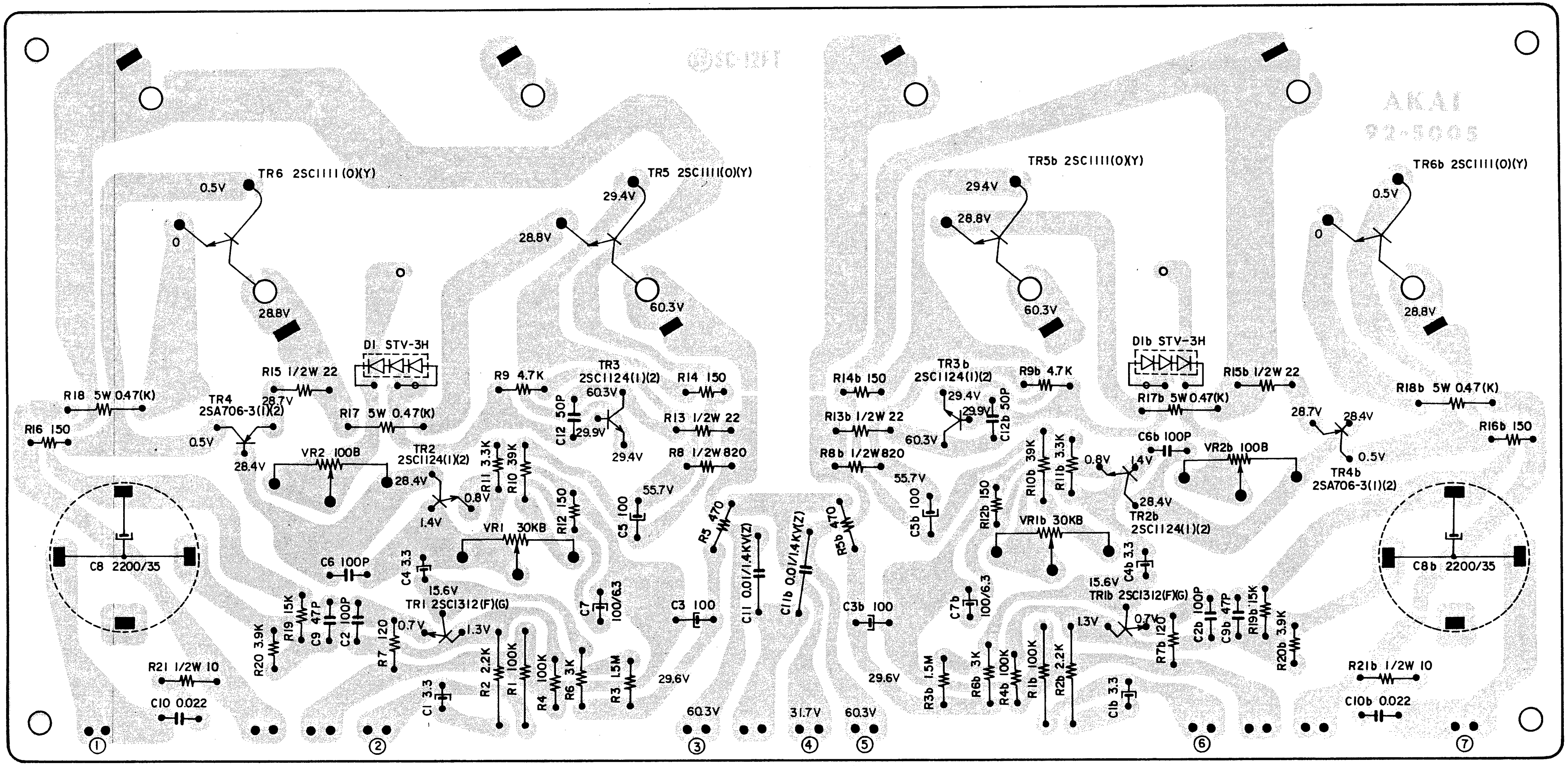
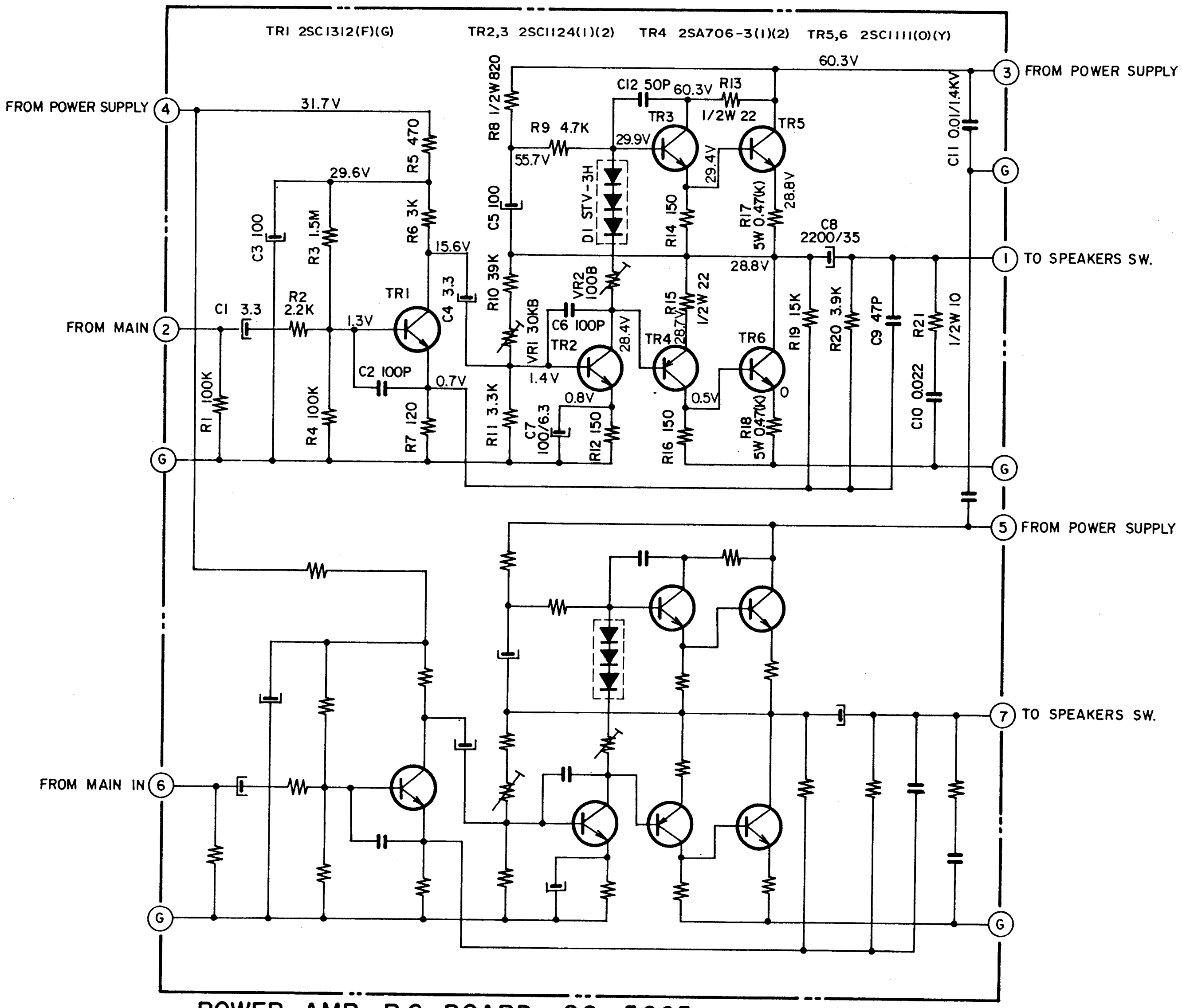

SC-12FT
AKAI
92-5005
TR6 2SC1111(O)(Y)
0.5V
0
28.8V
TR5 2SC1111(O)(Y)
29.4V
28.8V
60.3V
D1 STV-3H
R15 1/2W 22
28.7V
R18 5W 0.47(K)
TR4
2SA706-3(1)(2)
R16 150
0.5V
28.4V
R17 5W 0.47(K)
VR2 100B
TR2
2SC1124(1)(2)
28.4V
0.8V
1.4V
R9 4.7K
TR3
2SC1124(1)(2)
60.3V
29.9V
29.4V
C12 50P
R11 3.3K
R10 39K
R14 150
R13 1/2W 22
R8 1/2W 820
55.7V
C5 100
R12 150
VR1 30KB
C8 2200/35
C6 100P
C4 3.3
15.6V
TR1 2SC1312(F)(G)
0.7V
1.3V
R19 15K
C9 47P
C2 100P
R20 3.9K
R7 120
C7 100/6.3
C3 100
R5 470
C11 0.01/1.4KV(Z)
C11b 0.01/1.4KV(Z)
R5b 470
R21 1/2W 10
C10 0.022
C1 3.3
R2 2.2K
R1 100K
R4 100K
R6 3K
R3 1.5M
29.6V
60.3V
31.7V
60.3V
①
②
③
④
⑤
TR5b 2SC1111(O)(Y)
29.4V
28.8V
60.3V
TR6b 2SC1111(O)(Y)
0.5V
0
28.8V
D1b STV-3H
R14b 150
TR3b
2SC1124(1)(2)
29.4V
29.9V
C12b 50P
R9b 4.7K
R17b 5W 0.47(K)
R15b 1/2W 22
R18b 5W 0.47(K)
R13b 1/2W 22
60.3V
R8b 1/2W 820
55.7V
C5b 100
R10b 39K
R11b 3.3K
0.8V
1.4V
C6b 100P
VR2b 100B
28.7V
28.4V
0.5V
TR4b
2SA706-3(1)(2)
R16b 150
28.4V
TR2b
2SC1124(1)(2)
R12b 150
VR1b 30KB
C4b 3.3
C8b 2200/35
15.6V
TR1b 2SC1312(F)(G)
C3b 100
C7b 100/6.3
1.3V
0.7V
R7b 120
C2b 100P
C9b 47P
R19b 15K
R20b 3.9K
29.6V
R3b 1.5M
R6b 3K
R4b 100K
R1b 100K
R2b 2.2K
C1b 3.3
R21b 1/2W 10
C10b 0.022
⑥
⑦

Fig. 28 POWER AMP. P.C. BOARD 92-5005


TR1 2SC1312(F)(G)
TR2,3 2SC1124(1)(2)
TR4 2SA706-3(1)(2)
TR5,6 2SC1111(O)(Y)
FROM POWER SUPPLY 4
31.7V
29.6V
R5 470
R6 3K
15.6V
C3 100
R3 1.5M
R8 1/2W 820
R9 4.7K
55.7V
C5 100
C12 50P
60.3V
R13
1/2W 22
60.3V
3 FROM POWER SUPPLY
TR3
TR5
29.9V
29.4V
28.8V
C11 0.01/1.4KV
G
D1 STV-3H
R14 150
R17 5W 0.47(K)
C8 2200/35
28.8V
1 TO SPEAKERS SW.
R10 39K
VR2 100B
R15 1/2W 22
R19 15K
R20 3.9K
C9 47P
R21 1/2W 10
FROM MAIN 2
C1 3.3
R2 2.2K
TR1
1.3V
C4 3.3
VR1 30KB
C6 100P
TR2
28.4V
TR4
28.7V
TR6
C2 100P
0.7V
1.4V
0.8V
0.5V
0
R1 100K
R4 100K
R7 120
R11 3.3K
C7 100/6.3
R12 150
R16 150
R18 5W 0.47(K)
C10 0.022
G
G
5 FROM POWER SUPPLY
7 TO SPEAKERS SW.
FROM MAIN IN 6
G
G

POWER AMP. P.C. BOARD 92-5005

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHEMATIC 4

X. TUNING CORD THREADING

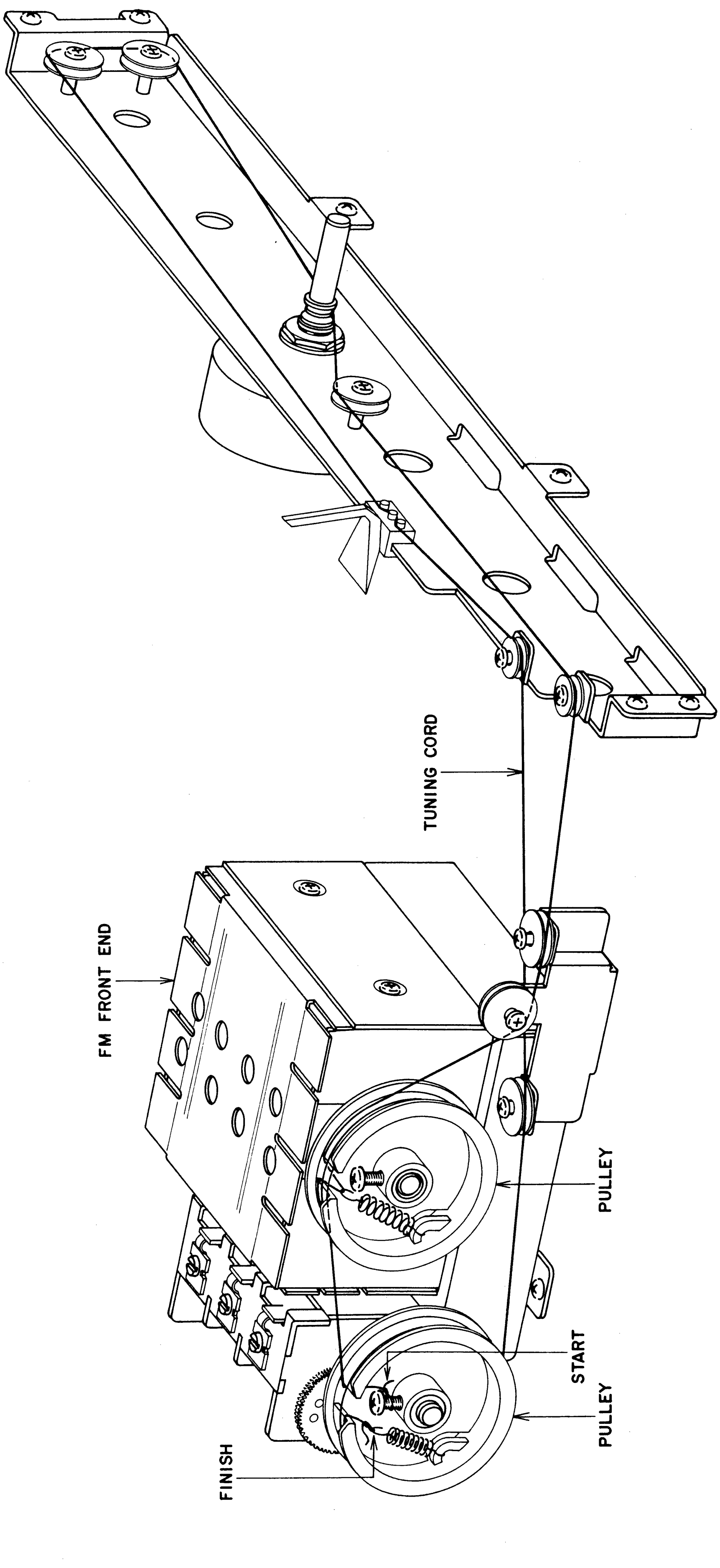

TUNING CORD
FM FRONT END
PULLEY
START
PULLEY
FINISH

Fig. 29 Model AA-940

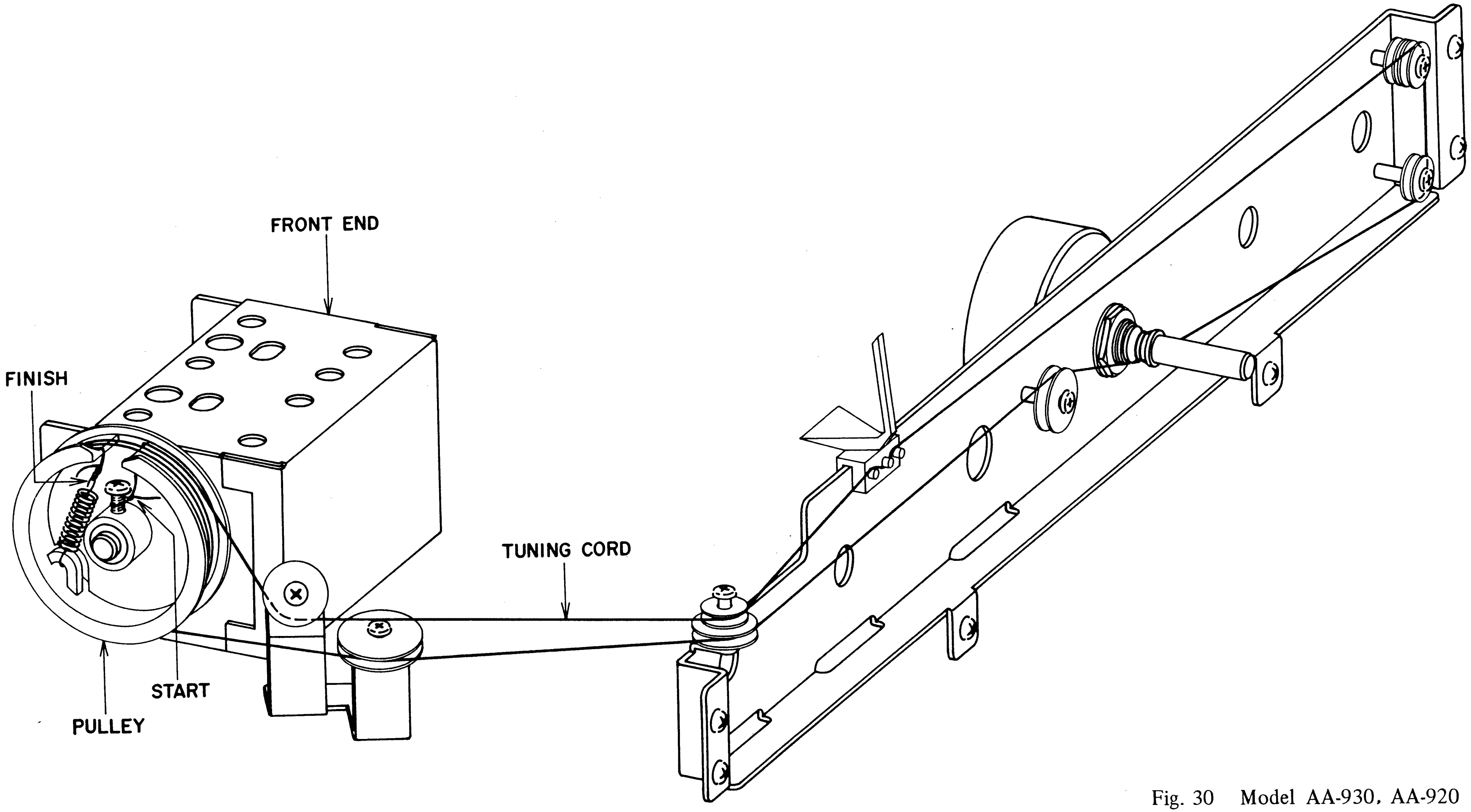
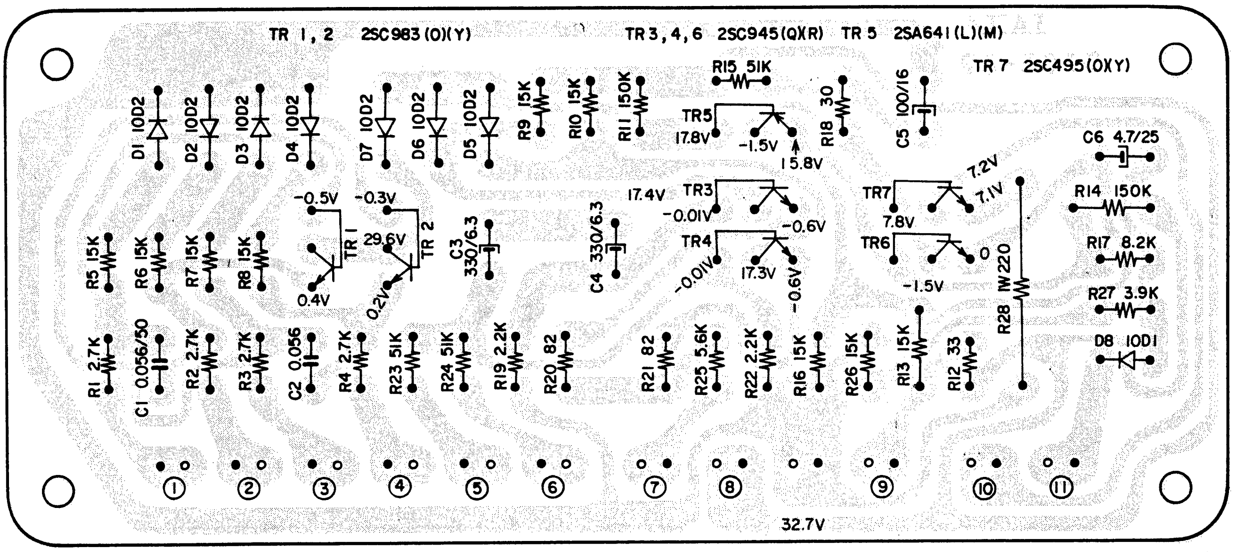
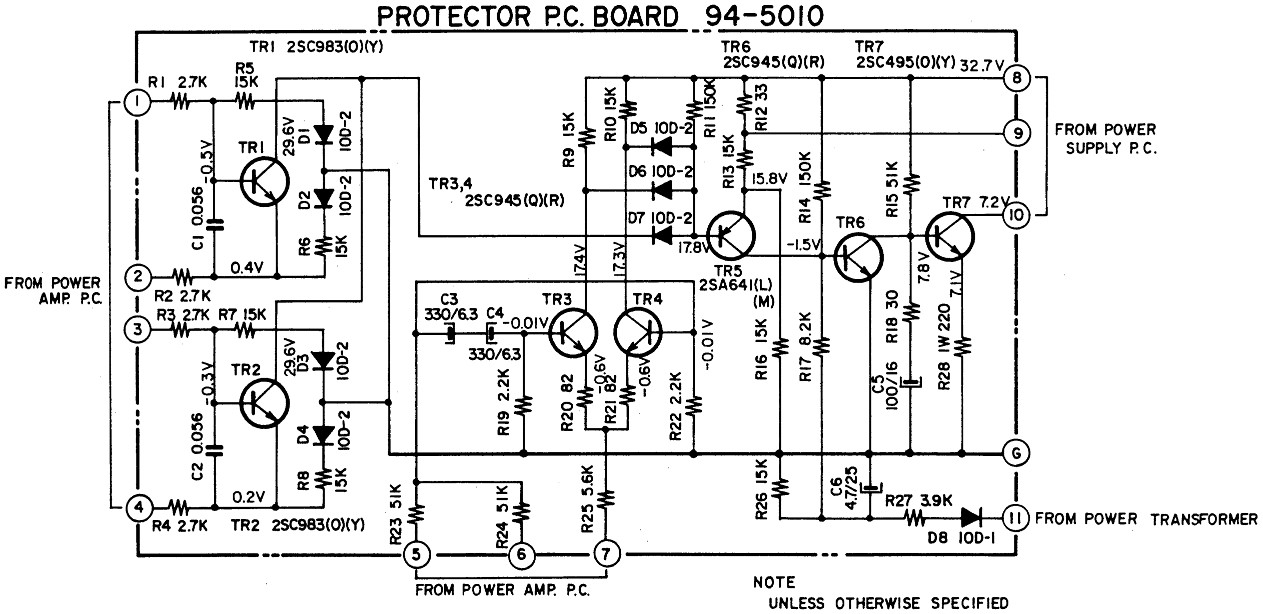

FRONT END
FINISH
TUNING CORD
START
PULLEY

Fig. 30 Model AA-930, AA-920

XI. COMPOSITE VIEWS OF COMPONENTS

1. PROTECTOR P.C. BOARD 94-5010

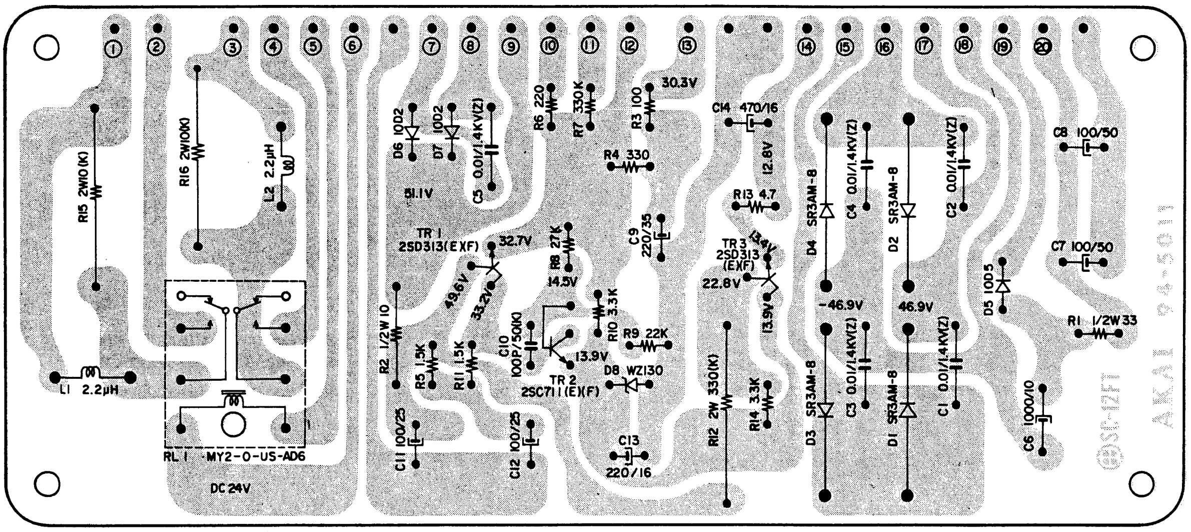

TR 1, 2 2SC983(O)(Y)
TR3,4,6 2SC945(Q)(R)
TR 5 2SA641(L)(M)
TR 7 2SC495(O)(Y)
D1 10D2
D2 10D2
D3 10D2
D4 10D2
D7 10D2
D6 10D2
D5 10D2
R9 15K
R10 15K
R11 150K
R15 51K
TR5
17.8V
-1.5V
15.8V
R18 30
C5 100/16
C6 4.7/25
-0.5V
-0.3V
29.6V
TR 1
TR 2
C3 330/6.3
C4 330/6.3
17.4V
TR3
-0.01V
-0.6V
TR4
17.3V
-0.6V
-0.01V
TR7
7.2V
7.1V
7.8V
TR6
0
-1.5V
R14 150K
R17 8.2K
R27 3.9K
D8 10D1
R28 1W220
R5 15K
R6 15K
R7 15K
R8 15K
0.4V
0.2V
R1 2.7K
C1 0.056/50
R2 2.7K
R3 2.7K
C2 0.056
R4 2.7K
R23 51K
R24 51K
R19 2.2K
R20 82
R21 82
R25 5.6K
R22 2.2K
R16 15K
R26 15K
R13 15K
R12 33
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
32.7V


PROTECTOR P.C. BOARD 94-5010
TR1 2SC983(O)(Y)
R1 2.7K
R5 15K
TR1
D1 10D-2
29.6V
-0.5V
C1 0.056
D2 10D-2
R6 15K
0.4V
FROM POWER AMP. P.C.
R2 2.7K
R3 2.7K
R7 15K
TR2
D3 10D-2
29.6V
-0.3V
C2 0.056
D4 10D-2
R8 15K
0.2V
R4 2.7K
TR2 2SC983(O)(Y)
TR3,4 2SC945(Q)(R)
R9 15K
R10 15K
D5 10D-2
D6 10D-2
D7 10D-2
R11 150K
R12 33
R13 15K
15.8V
17.8V
17.4V
17.3V
TR5 2SA641(L)(M)
TR6 2SC945(Q)(R)
TR7 2SC495(O)(Y)
32.7V
R14 150K
R15 51K
-1.5V
TR6
TR7 7.2V
7.8V
7.1V
C3 330/6.3
C4 330/6.3
-0.01V
TR3
TR4
-0.6V
-0.6V
-0.01V
R19 2.2K
R20 82
R21 82
R22 2.2K
R16 15K
R17 8.2K
R18 30
C5 100/16
R28 1W220
R23 51K
R24 51K
R25 5.6K
R26 15K
C6 4.7/25
R27 3.9K
D8 10D-1
FROM POWER SUPPLY P.C.
FROM POWER TRANSFORMER
FROM POWER AMP. P.C.
⑧
⑨
⑩
G
⑪
①
②
③
④
⑤
⑥
⑦

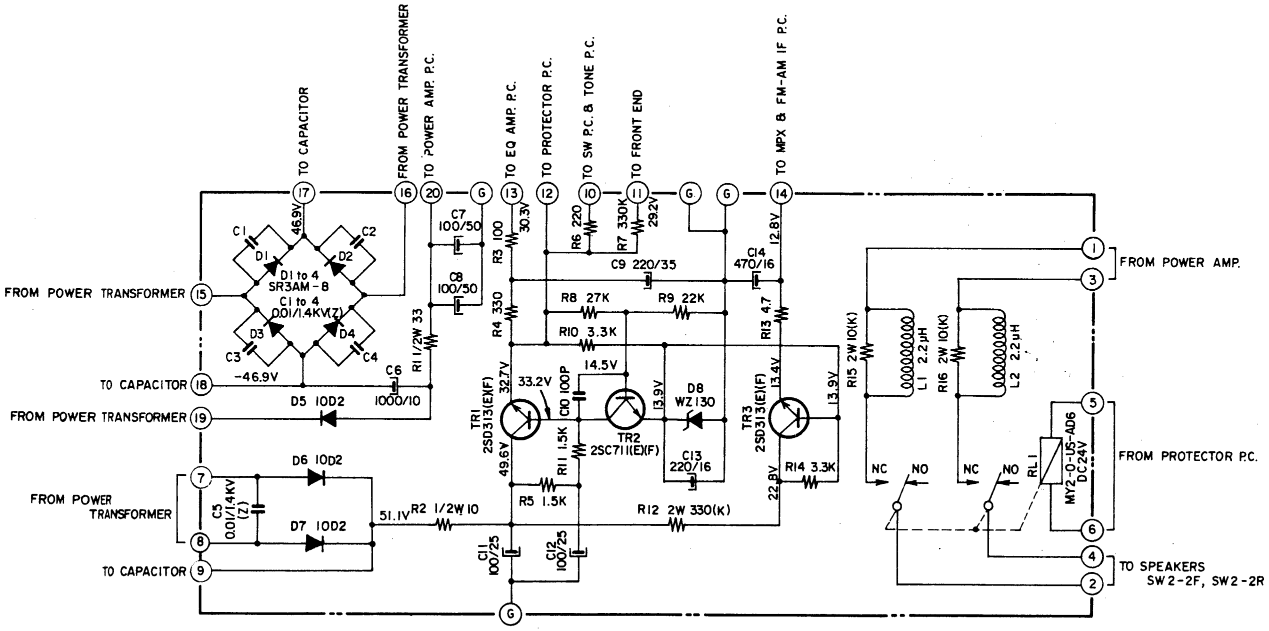
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHEMATIC 5

2. POWER SUPPLY P.C. BOARD 94-5011



①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
R15 2W10(K)
R16 2W10(K)
L2 2.2μH
L1 2.2μH
RL1 -MY2-0-US-AD6
DC 24V
D6 10D2
D7 10D2
C5 0.01/1.4KV(Z)
51.1V
TR1
2SD313(EXF)
32.7V
49.6V
33.2V
R2 1/2W 10
R5 1.5K
R11 1.5K
C10 100P/50(K)
TR2
2SC711(EXF)
13.9V
C11 100/25
C12 100/25
R6 220
R7 330K
R3 100
30.3V
R4 330
R8 27K
14.5V
R10 3.3K
R9 22K
D8 WZ130
C9 220/35
C13
220/16
C14 470/16
12.8V
R13 4.7
TR3
2SD313
(EXF)
13.4V
22.8V
13.9V
R12 2W 330(K)
R14 3.3K
D4 SR3AM-8
D3 SR3AM-8
C4 0.01/1.4KV(Z)
C3 0.01/1.4KV(Z)
-46.9V
D2 SR3AM-8
D1 SR3AM-8
C2 0.01/1.4KV(Z)
C1 0.01/1.4KV(Z)
46.9V
D5 10D5
C6 1000/10
C8 100/50
C7 100/50
R1 1/2W33
SG-12FT
AKAI 94-5011



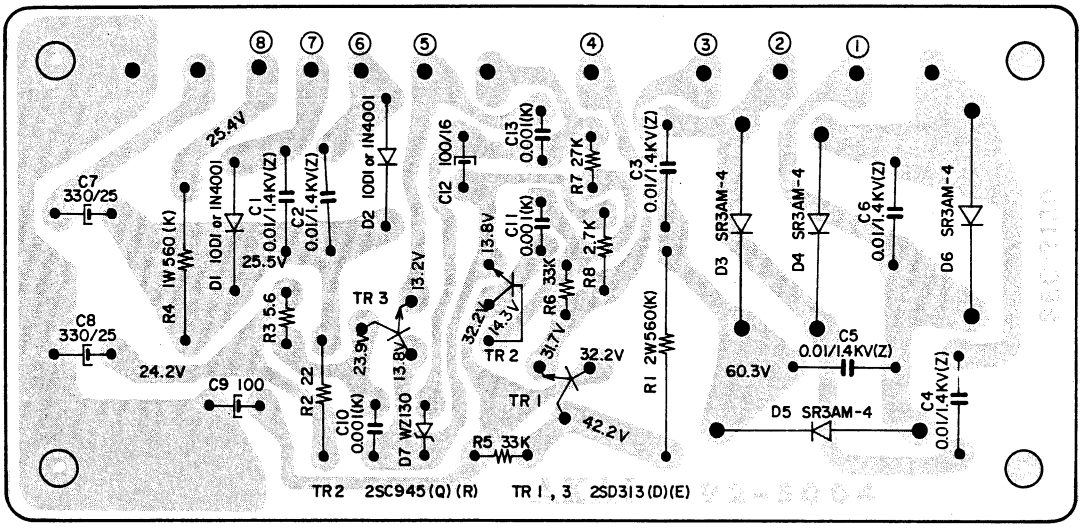
TO CAPACITOR
FROM POWER TRANSFORMER
TO POWER AMP. P.C.
TO EQ AMP. P.C.
TO PROTECTOR P.C.
TO SW P.C. & TONE P.C.
TO FRONT END
TO MPX & FM-AM IF P.C.
⑰
⑯
⑳
G
⑬
⑫
⑩
⑪
G
G
⑭
46.9V
C1
C2
D1
D2
D1 to 4
SR3AM-8
C1 to 4
0.01/1.4KV(Z)
D3
D4
C3
C4
-46.9V
FROM POWER TRANSFORMER ⑮
TO CAPACITOR ⑱
FROM POWER TRANSFORMER ⑲
D5 10D2
C6
1000/10
C7
100/50
C8
100/50
R1 1/2W 33
R3 100
30.3V
R6 220
R7 330K
29.2V
C9 220/35
C14
470/16
12.8V
R4 330
R8 27K
R9 22K
R10 3.3K
R13 4.7
32.7V
33.2V
14.5V
13.9V
D8
WZ130
13.4V
13.9V
TR1
2SD313(EXF)
C10 100P
TR2
2SC711(EXF)
C13
220/16
TR3
2SD313(EXF)
49.6V
R11 1.5K
R5 1.5K
R14 3.3K
22.8V
FROM POWER TRANSFORMER
⑦
⑧
C5
0.01/1.4KV
(Z)
D6 10D2
D7 10D2
51.1V
R2 1/2W 10
R12 2W 330(K)
C11
100/25
C12
100/25
TO CAPACITOR ⑨
G
R15 2W 10(K)
L1 2.2μH
R16 2W 10(K)
L2 2.2μH
NC
NO
NC
NO
RL1
MY2-0-US-AD6
DC24V
①
③
FROM POWER AMP.
⑤
⑥
FROM PROTECTOR P.C.
④
②
TO SPEAKERS
SW2-2F, SW2-2R

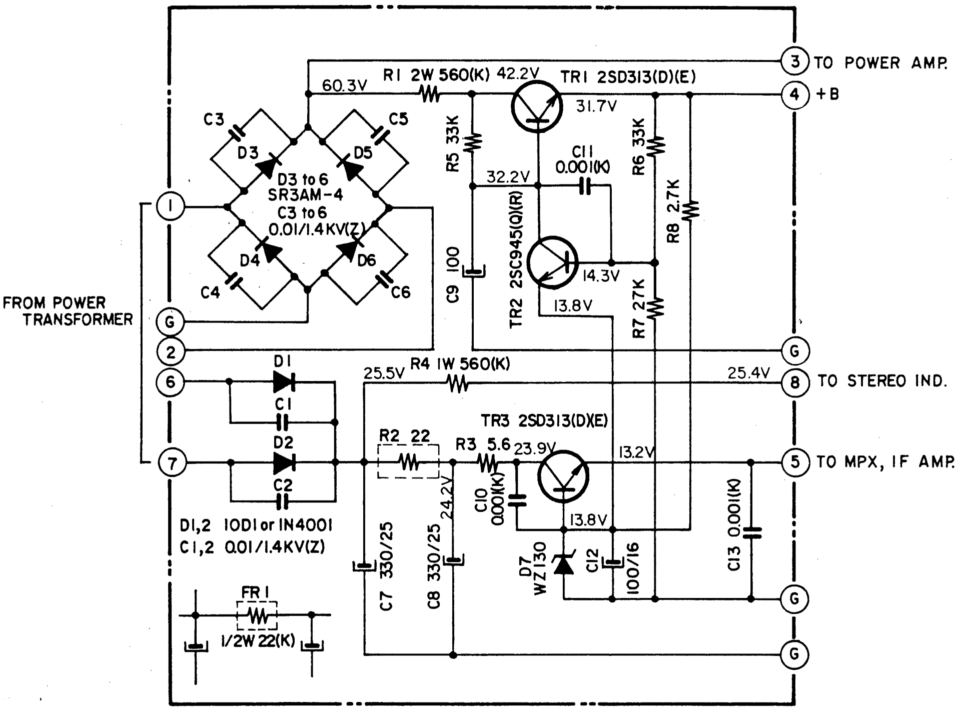
POWER SUPPLY P.C. BOARD 94-5011

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHEMATIC 6

3. POWER SUPPLY P.C. BOARD 92-5004


⑧ ⑦ ⑥ ⑤ ④ ③ ② ①
C7 330/25
C8 330/25
R4 1W 560(K)
25.4V
D1 10D1 or IN4001
C1 0.01/1.4KV(Z)
C2 0.01/1.4KV(Z)
25.5V
D2 10D1 or IN4001
C12 100/16
C13 0.001(K)
R7 27K
C3 0.01/1.4KV(Z)
C11 0.001(K)
R8 2.7K
R6 33K
13.8V
13.2V
TR 3
R3 5.6
24.2V
C9 100
R2 22
23.9V
13.8V
C10 0.001(K)
D7 WZ130
32.2V
14.3V
TR 2
31.7V
32.2V
TR 1
42.2V
R5 33K
R1 2W560(K)
D3 SR3AM-4
D4 SR3AM-4
C6 0.01/1.4KV(Z)
D6 SR3AM-4
C5 0.01/1.4KV(Z)
60.3V
D5 SR3AM-4
C4 0.01/1.4KV(Z)
TR2 2SC945(Q)(R)
TR1, 3 2SD313(D)(E)

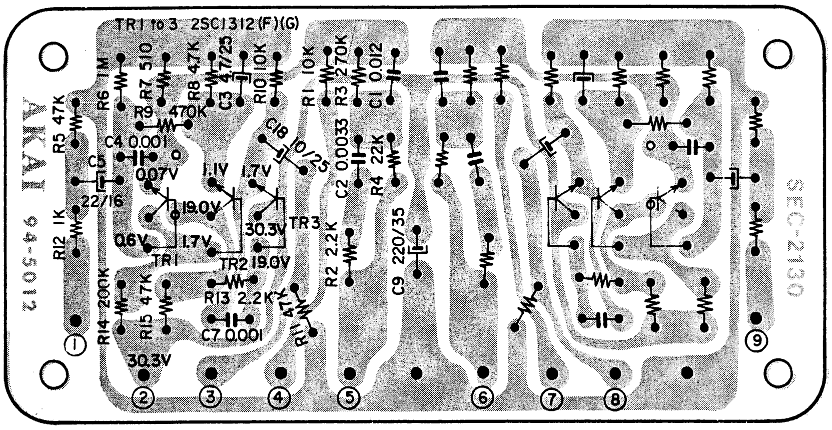

③ TO POWER AMP.
④ +B
R1 2W 560(K) 42.2V
TR1 2SD313(D)(E)
60.3V
31.7V
C3
C5
D3
D5
D3 to 6
SR3AM-4
C3 to 6
0.01/1.4KV(Z)
D4
D6
C4
C6
R5 33K
32.2V
C11 0.001(K)
R6 33K
R8 2.7K
C9 100
TR2 2SC945(Q)(R)
14.3V
13.8V
R7 27K
FROM POWER TRANSFORMER
①
Ⓖ
②
⑥
⑦
Ⓖ
⑧ TO STEREO IND.
⑤ TO MPX, IF AMP.
D1
C1
D2
C2
25.5V
R4 1W 560(K)
25.4V
TR3 2SD313(D)(E)
R2 22
R3 5.6
23.9V
13.2V
24.2V
C10 0.001(K)
13.8V
D7 WZ130
C12 100/16
C13 0.001(K)
D1,2 10D1 or IN4001
C1,2 0.01/1.4KV(Z)
C7 330/25
C8 330/25
FR1
1/2W 22(K)

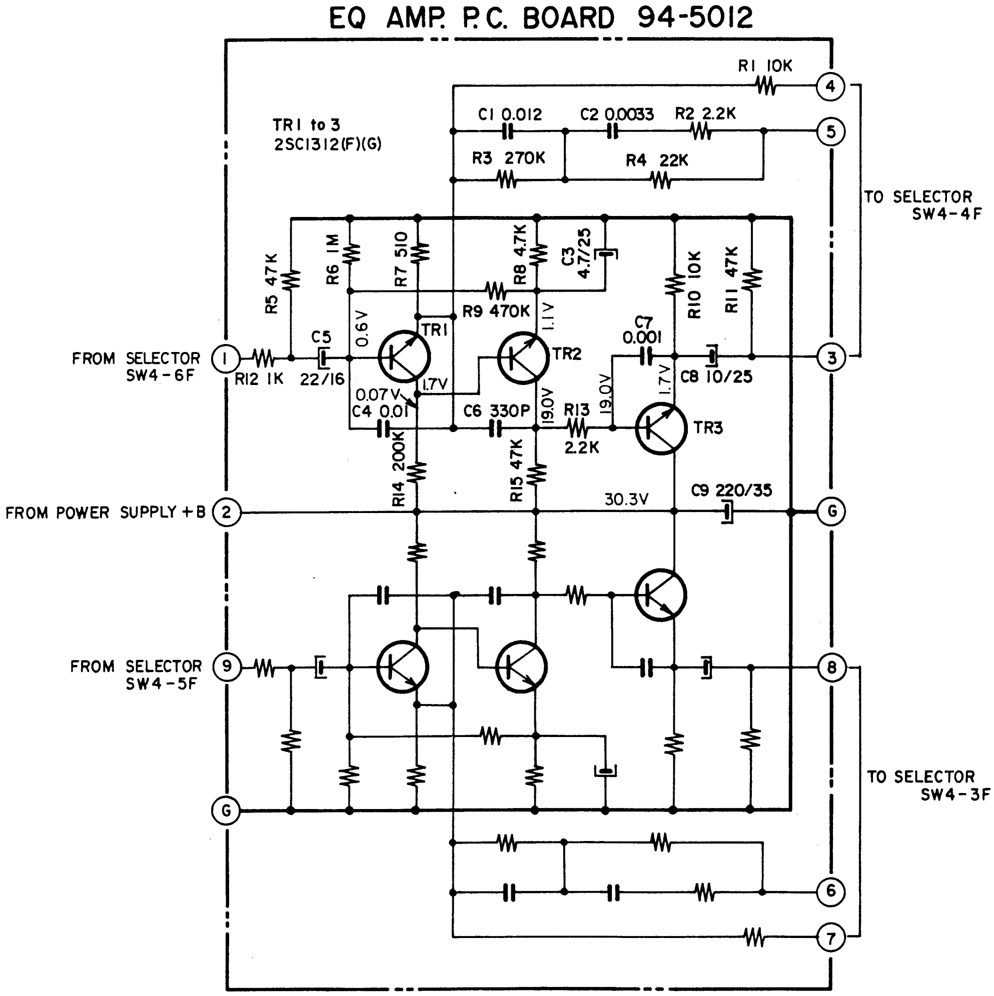
POWER SUPPLY P.C. BOARD 92-5004

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V.(J)
IN CEE AND CSA MODELS THIS R2
22Ω RESISTORS IS A FUSIBLE RESISTOR

SCHMATIC 7

4. EQ. P.C. BOARD 94-5012

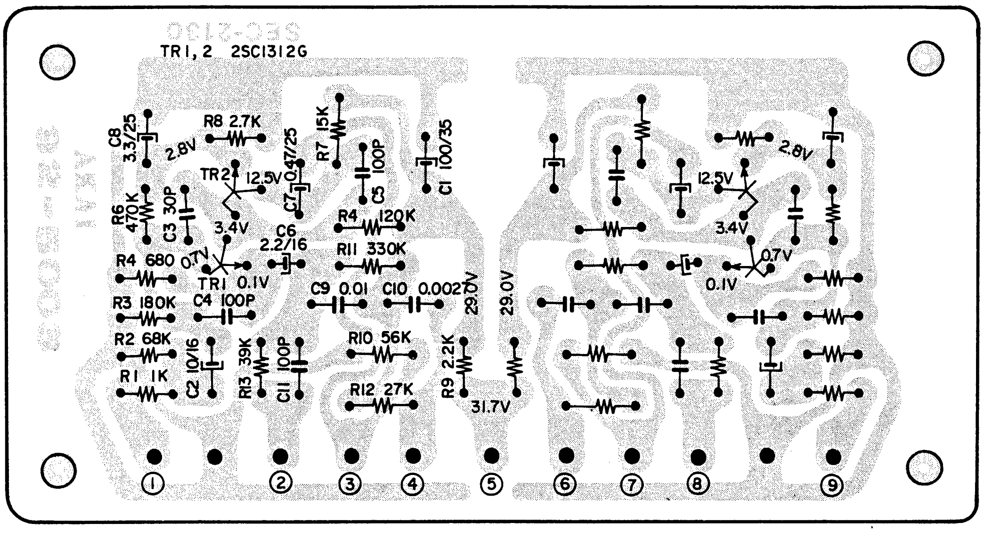

TR1 to 3 2SC1312(F)(G)
AKAI
94-5012
SEC-2130
R5 47K
R6 1M
R7 510
R8 4.7K
C3 4.7/25
R10 10K
R11 10K
R3 270K
C1 0.012
R9 470K
C4 0.001
C18 10/25
C2 0.0033
R4 22K
C5 22/16
0.07V
1.1V
1.7V
19.0V
30.3V
TR3
R12 1K
0.6V
1.7V
TR1
TR2
19.0V
R2 2.2K
C9 220/35
R14 200K
R15 47K
R13 2.2K
C7 0.001
R11 47K
30.3V
①
②
③
④
⑤
⑥
⑦
⑧
⑨

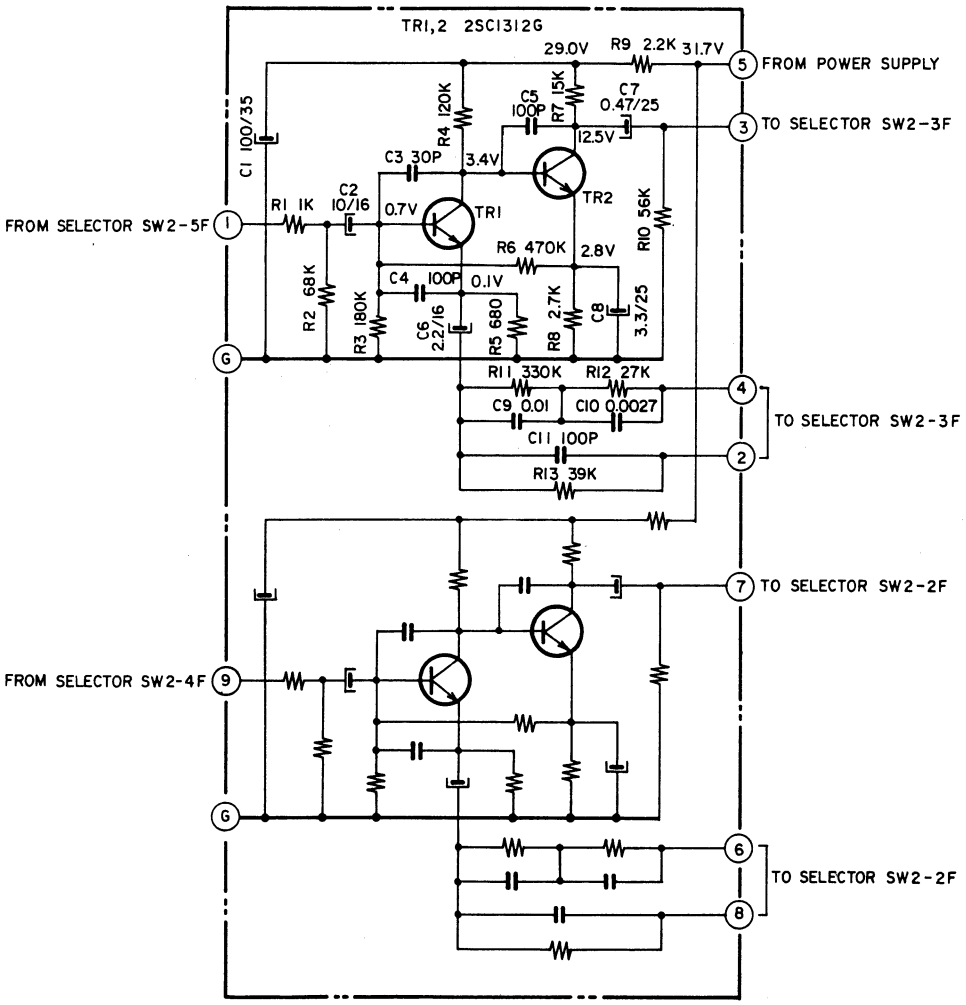

EQ AMP. P.C. BOARD 94-5012
R1 10K
C1 0.012
C2 0.0033
R2 2.2K
TR1 to 3
2SC1312(F)(G)
R3 270K
R4 22K
TO SELECTOR
SW4-4F
R5 47K
R6 1M
R7 510
R8 4.7K
C3 4.7/25
R10 10K
R11 47K
R9 470K
1.1V
0.6V
TR1
TR2
C7
0.001
C5
FROM SELECTOR
SW4-6F
R12 1K
22/16
0.07V
1.7V
C8 10/25
1.7V
19.0V
C4 0.01
C6 330P
19.0V
R13
2.2K
TR3
R14 200K
R15 47K
30.3V
C9 220/35
FROM POWER SUPPLY +B
FROM SELECTOR
SW4-5F
TO SELECTOR
SW4-3F
①
②
③
④
⑤
⑥
⑦
⑧
⑨
G

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHAMATIC 8

5. EQ. P.C. BOARD 92-5003


TR1, 2 2SC1312G
C8 3.3/25
R8 2.7K
2.8V
R7 15K
C7 0.47/25
C5 100P
C1 100/35
TR2
12.5V
R6 470K
C3 30P
3.4V
R4 120K
C6 2.2/16
R11 330K
R4 680
0.7V
TR1 0.1V
C9 0.01
C10 0.0027
29.0V
R3 180K
C4 100P
R2 68K
C2 10/16
R13 39K
C11 100P
R10 56K
R9 2.2K
R1 1K
R12 27K
31.7V
①
②
③
④
⑤
⑥
⑦
⑧
⑨

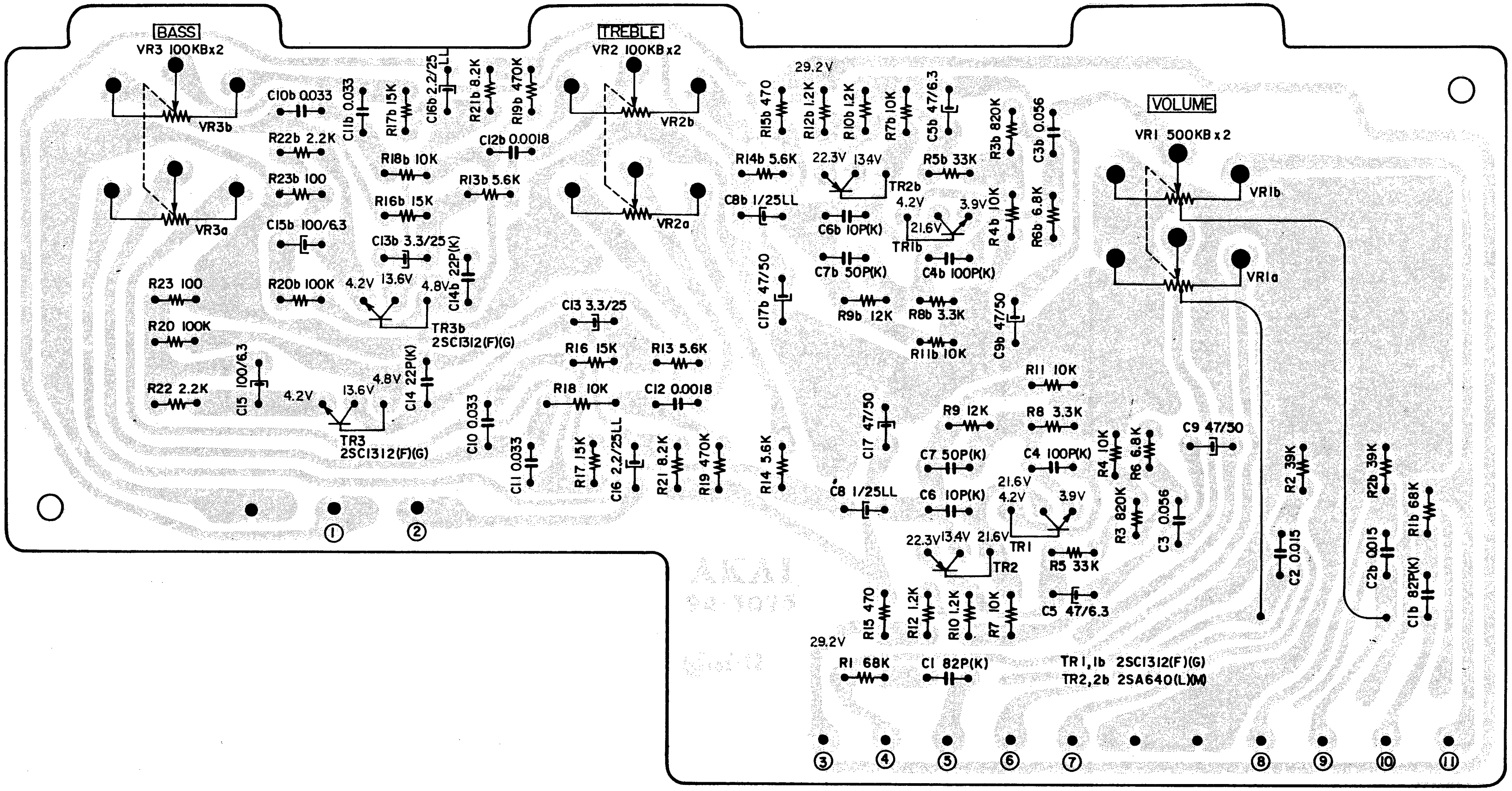

TR1,2 2SC1312G
29.0V
R9 2.2K
31.7V
⑤ FROM POWER SUPPLY
C1 100/35
R4 120K
C5 100P
R7 15K
C7 0.47/25
12.5V
③ TO SELECTOR SW2-3F
C3 30P
3.4V
TR2
R1 1K
C2 10/16
0.7V
TR1
R10 56K
FROM SELECTOR SW2-5F ①
R6 470K
2.8V
C4 100P
0.1V
R2 68K
R3 180K
C6 2.2/16
R5 680
R8 2.7K
C8 3.3/25
G
R11 330K
R12 27K
C9 0.01
C10 0.0027
④
TO SELECTOR SW2-3F
C11 100P
②
R13 39K
⑦ TO SELECTOR SW2-2F
FROM SELECTOR SW2-4F ⑨
G
⑥
TO SELECTOR SW2-2F
⑧

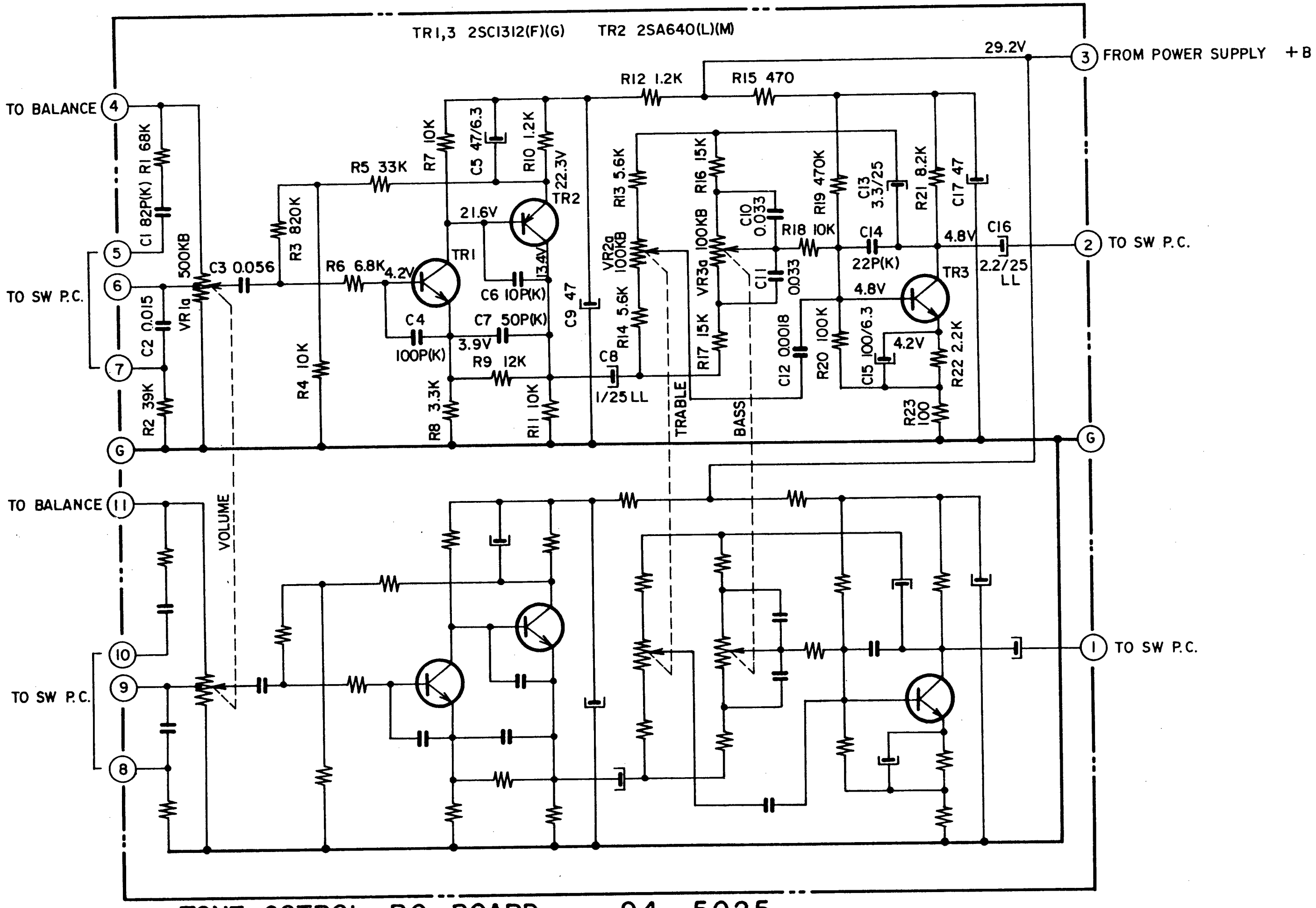
EQ AMP. P.C. BOARD 92-5003

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHAMATIC 9

6. TONE CONTROL P.C. BOARD 94-5025


BASS
VR3 100KBx2
VR3b
VR3a
C10b 0.033
C11b 0.033
R17b 15K
C16b 2.2/25 LL
R21b 8.2K
R19b 470K
R22b 2.2K
C12b 0.0018
R18b 10K
R23b 100
R13b 5.6K
R16b 15K
C15b 100/6.3
C13b 3.3/25
C14b 22P(K)
R23 100
R20b 100K
4.2V
13.6V
4.8V
TR3b
2SC1312(F)(G)
R20 100K
C15 100/6.3
R22 2.2K
4.2V
13.6V
4.8V
C14 22P(K)
TR3
2SC1312(F)(G)
C10 0.033
C11 0.033
TREBLE
VR2 100KBx2
VR2b
VR2a
C13 3.3/25
R16 15K
R13 5.6K
R18 10K
C12 0.0018
R17 15K
C16 2.2/25LL
R21 8.2K
R19 470K
①
②
29.2V
R15b 470
R12b 1.2K
R10b 1.2K
R7b 10K
C5b 47/6.3
R3b 820K
C3b 0.056
R14b 5.6K
22.3V
13.4V
R5b 33K
TR2b
C8b 1/25LL
C6b 10P(K)
4.2V
3.9V
21.6V
TR1b
R4b 10K
R6b 6.8K
C17b 47/50
C7b 50P(K)
C4b 100P(K)
R9b 12K
R8b 3.3K
C9b 47/50
R11b 10K
R11 10K
C17 47/50
R9 12K
R8 3.3K
R14 5.6K
C7 50P(K)
C4 100P(K)
R4 10K
R6 6.8K
C9 47/50
C8 1/25LL
C6 10P(K)
21.6V
4.2V
3.9V
22.3V
13.4V
21.6V
TR1
TR2
R5 33K
R3 820K
C3 0.056
C5 47/6.3
R15 470
R12 1.2K
R10 1.2K
R7 10K
29.2V
R1 68K
C1 82P(K)
TR1, 1b 2SC1312(F)(G)
TR2, 2b 2SA640(L)(M)
VOLUME
VR1 500KBx2
VR1b
VR1a
R2 39K
C2 0.015
R2b 39K
C2b 0.015
R1b 68K
C1b 82P(K)
AKAI
94-5025
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪

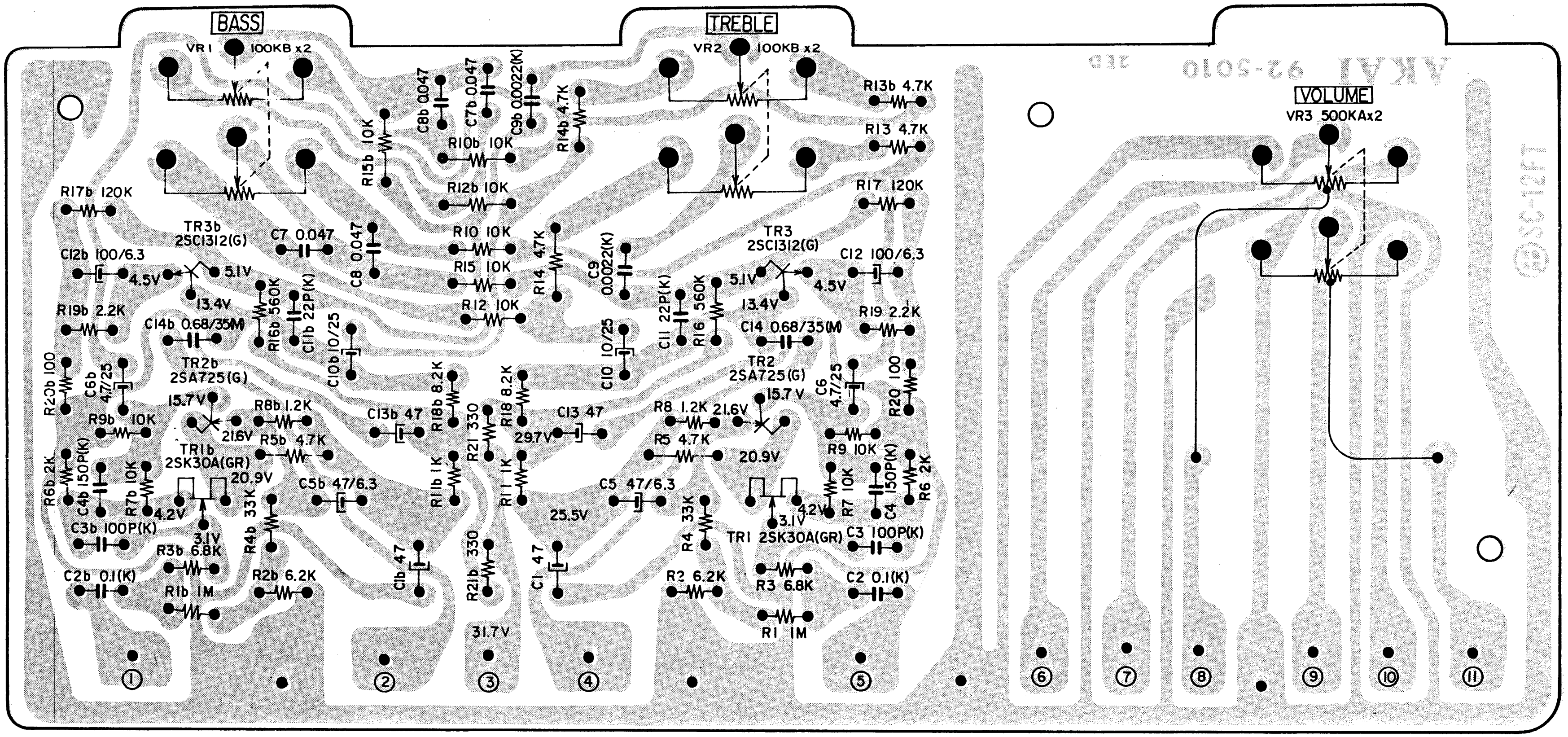

TR1,3 2SC1312(F)(G) TR2 2SA640(L)(M)
29.2V
③ FROM POWER SUPPLY +B
TO BALANCE ④
R1 68K
C1 82P(K)
⑤
TO SW P.C.
⑥
⑦
C2 0.015
R2 39K
VR1a 500KB
C3 0.056
R3 820K
R4 10K
R5 33K
R6 6.8K
4.2V
TR1
C4 100P(K)
3.9V
R7 10K
C5 47/6.3
R8 3.3K
R9 12K
R10 1.2K
22.3V
TR2
21.6V
13.4V
C6 10P(K)
C7 50P(K)
R11 10K
C9 47
C8 1/25 LL
R12 1.2K
R15 470
R13 5.6K
VR2a 100KB
R14 5.6K
R16 15K
VR3a 100KB
R17 15K
C10 0.033
C11 0.033
C12 0.0018
R18 10K
R19 470K
C13 3.3/25
C14 22P(K)
R20 100K
4.8V
TR3
C15 100/6.3
4.2V
R21 8.2K
R22 2.2K
R23 100
C17 47
4.8V
C16 2.2/25 LL
② TO SW P.C.
Ⓖ
TRABLE
BASS
VOLUME
TO BALANCE ⑪
⑩
TO SW P.C. ⑨
⑧
① TO SW P.C.

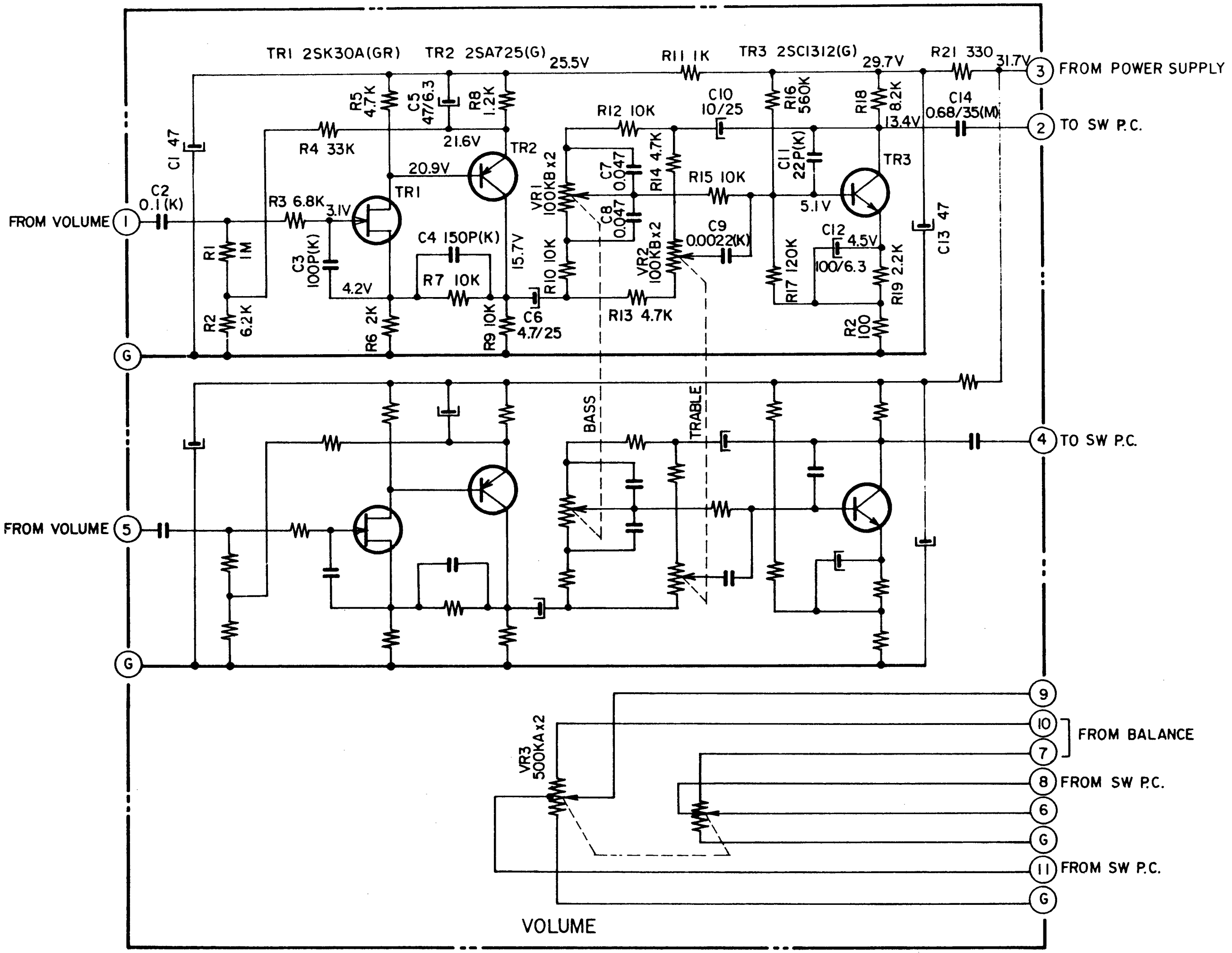
TONE COTROL P.C. BOARD 94-5025

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
LL INDICATES LOW LEAKAGE CAPACITORS

SCHAMATIC 10

7. TONE CONTROL P.C. BOARD 92-5010


BASS
VR1 100KB x2
TREBLE
VR2 100KB x2
VOLUME
VR3 500KAx2
AKAI 92-5010
SC-12FT
C8b 0.047
C7b 0.047
C9b 0.0022(K)
R14b 4.7K
R15b 10K
R10b 10K
R12b 10K
R13b 4.7K
R13 4.7K
R17b 120K
R17 120K
TR3b 2SC1312(G)
TR3 2SC1312(G)
C7 0.047
C8 0.047
R10 10K
R15 10K
R14 4.7K
R12 10K
C9 0.0022(K)
C12b 100/6.3
C12 100/6.3
4.5V
5.1V
13.4V
R19b 2.2K
R19 2.2K
C14b 0.68/35(M)
C14 0.68/35(M)
R16b 560K
C11b 22P(K)
C11 22P(K)
R16 560K
C10b 10/25
C10 10/25
R20b 100
C6b 4.7/25
C6 4.7/25
R20 100
TR2b 2SA725(G)
TR2 2SA725(G)
15.7V
21.6V
R8b 1.2K
R8 1.2K
R9b 10K
R9 10K
R5b 4.7K
R5 4.7K
C13b 47
C13 47
R18b 8.2K
R18 8.2K
R21 330
29.7V
R6b 2K
R6 2K
C4b 150P(K)
C4 150P(K)
R7b 10K
R7 10K
TR1b 2SK30A(GR)
TR1 2SK30A(GR)
20.9V
4.2V
3.1V
C5b 47/6.3
C5 47/6.3
R11b 1K
R11 1K
25.5V
R4b 33K
R4 33K
C3b 100P(K)
C3 100P(K)
R3b 6.8K
R3 6.8K
C1b 47
R21b 330
C1 47
C2b 0.1(K)
C2 0.1(K)
R1b 1M
R1 1M
R2b 6.2K
R2 6.2K
31.7V
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪

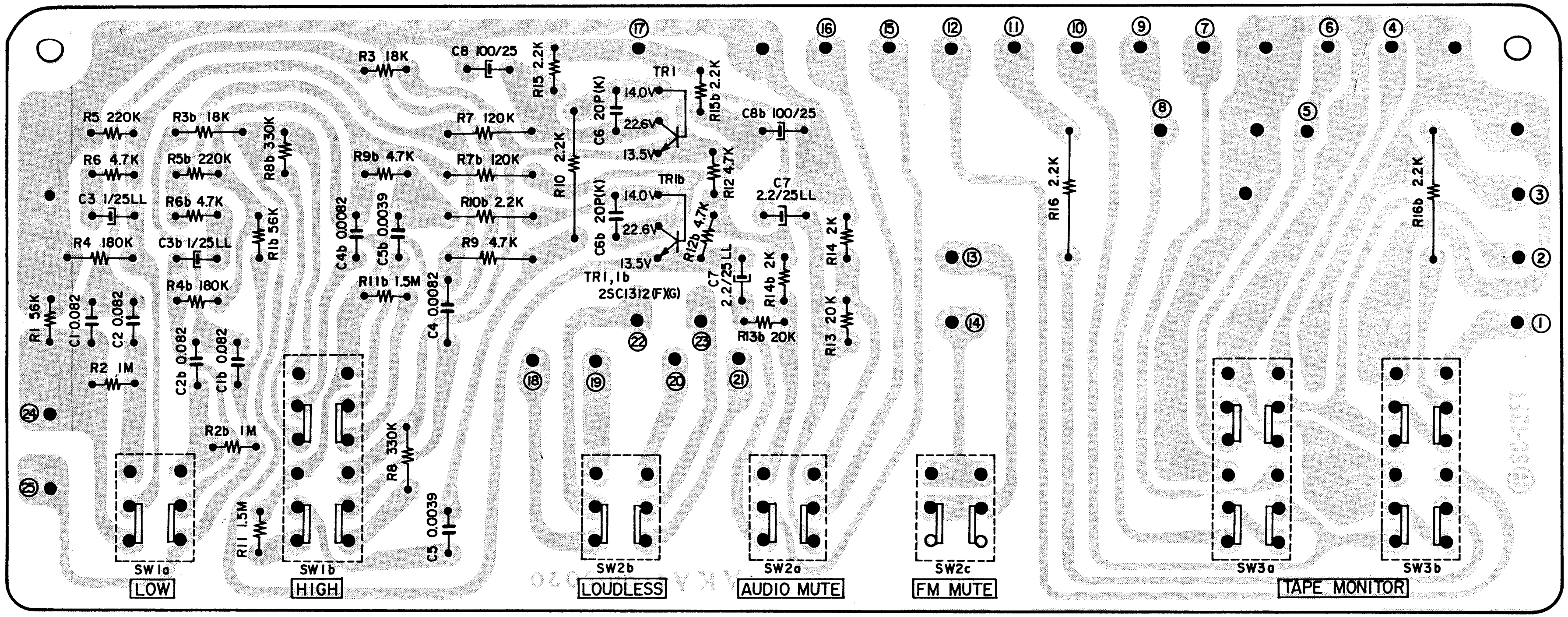

TR1 2SK30A(GR)
TR2 2SA725(G)
25.5V
R11 1K
TR3 2SC1312(G)
29.7V
R21 330
31.7V
3 FROM POWER SUPPLY
R5 4.7K
C5 47/6.3
R8 1.2K
R12 10K
C10 10/25
R16 560K
R18 8.2K
C14 0.68/35(M)
13.4V
2 TO SW P.C.
C1 47
R4 33K
21.6V
TR2
C7 0.047
R14 4.7K
C11 22P(K)
TR3
20.9V
VR1 100KBx2
R15 10K
C2 0.1(K)
R3 6.8K
3.1V
TR1
C8 0.047
5.1V
FROM VOLUME 1
C4 150P(K)
C9 0.0022(K)
C12 100/6.3
4.5V
C13 47
R1 1M
C3 100P(K)
15.7V
R10 10K
VR2 100KBx2
R17 120K
R19 2.2K
R7 10K
4.2V
R2 6.2K
R6 2K
R9 10K
C6 4.7/25
R13 4.7K
R2 100
G
BASS
TRABLE
4 TO SW P.C.
FROM VOLUME 5
G
9
10
7
FROM BALANCE
8 FROM SW P.C.
6
G
11 FROM SW P.C.
G
VR3 500KAx2
VOLUME

TONE CONTROL P.C. BOARD 92 - 5010

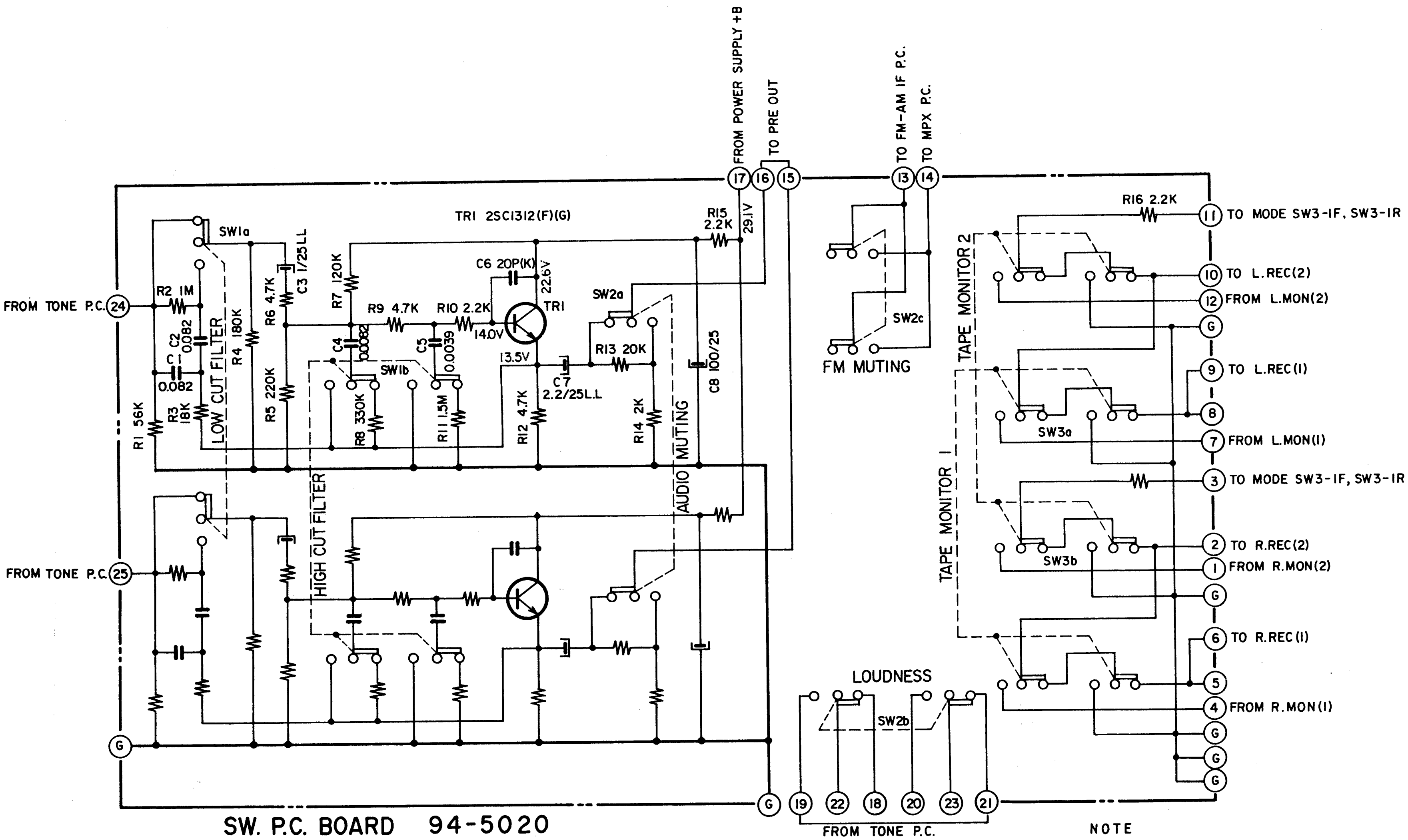
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHAMATIC 11

8. SWITCH P.C. BOARD 94-5020


R5 220K
R6 4.7K
C3 1/25LL
R4 180K
R1 56K
C1 0.082
C2 0.082
R2 1M
R3b 18K
R5b 220K
R6b 4.7K
C3b 1/25LL
R4b 180K
C2b 0.082
C1b 0.082
R2b 1M
R8b 330K
R1b 56K
R11 1.5M
R3 18K
R9b 4.7K
C4b 0.0082
C5b 0.0039
R11b 1.5M
C4 0.0082
R8 330K
C5 0.0039
C8 100/25
R15 2.2K
R7 120K
R7b 120K
R10b 2.2K
R9 4.7K
R10 2.2K
C6 20P(K)
C6b 20P(K)
TR1
TR1b
14.0V
22.6V
13.5V
TR1,1b
2SC1312(F)(G)
R15b 2.2K
R12 4.7K
R12b 4.7K
C8b 100/25
C7 2.2/25LL
C7 2.2/25LL
R14b 2K
R13b 20K
R14 2K
R13 20K
R16 2.2K
R16b 2.2K
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
SW1a
LOW
SW1b
HIGH
SW2b
LOUDLESS
SW2a
AUDIO MUTE
SW2c
FM MUTE
SW3a
SW3b
TAPE MONITOR

X

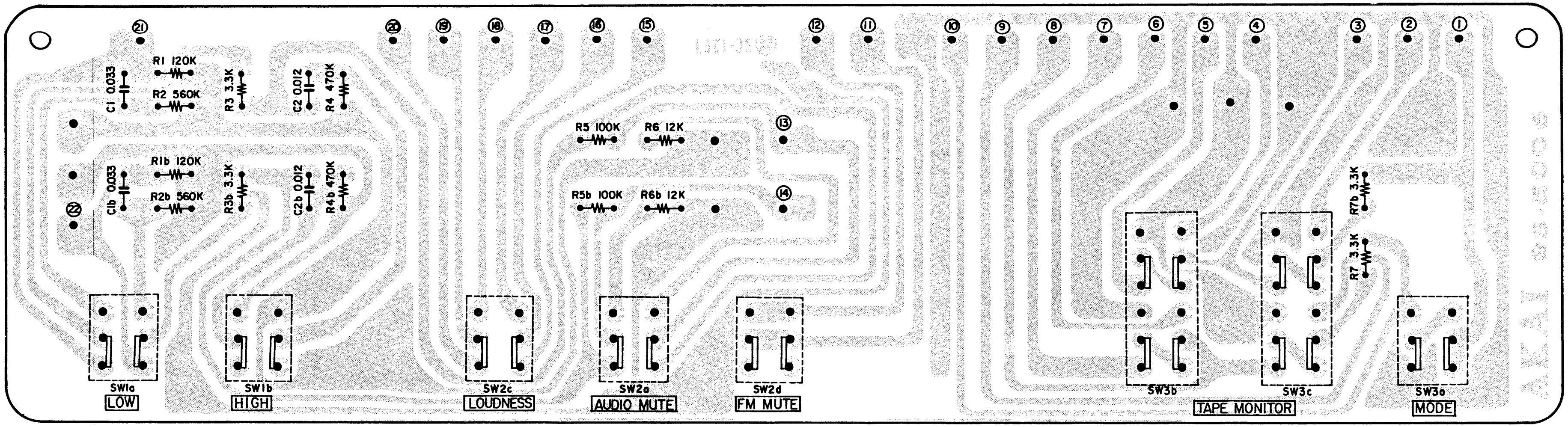

FROM POWER SUPPLY +B
TO PRE OUT
TO FM-AM IF P.C.
TO MPX P.C.
17
16
15
13
14
TR1 2SC1312(F)(G)
R15 2.2K
29.1V
SW1a
C3 1/25LL
R7 120K
C6 20P(K)
22.6V
TR1
FROM TONE P.C.
24
R2 1M
C2 0.082
C1 0.082
R4 180K
R6 4.7K
R9 4.7K
R10 2.2K
14.0V
13.5V
SW2a
C4 0.0082
C5 0.0039
SW1b
R8 330K
R11 1.5M
C7 2.2/25L.L
R13 20K
C8 100/25
R12 4.7K
R14 2K
R1 56K
R3 18K
LOW CUT FILTER
R5 220K
HIGH CUT FILTER
AUDIO MUTING
FM MUTING
SW2c
R16 2.2K
11
TO MODE SW3-IF, SW3-IR
10
TO L.REC(2)
12
FROM L.MON(2)
G
TAPE MONITOR 2
9
TO L.REC(1)
8
SW3a
7
FROM L.MON(1)
3
TO MODE SW3-IF, SW3-IR
TAPE MONITOR 1
2
TO R.REC(2)
SW3b
1
FROM R.MON(2)
G
FROM TONE P.C.
25
6
TO R.REC(1)
5
LOUDNESS
SW2b
4
FROM R.MON(1)
G
G
G
G
G
19
22
18
20
23
21
FROM TONE P.C.

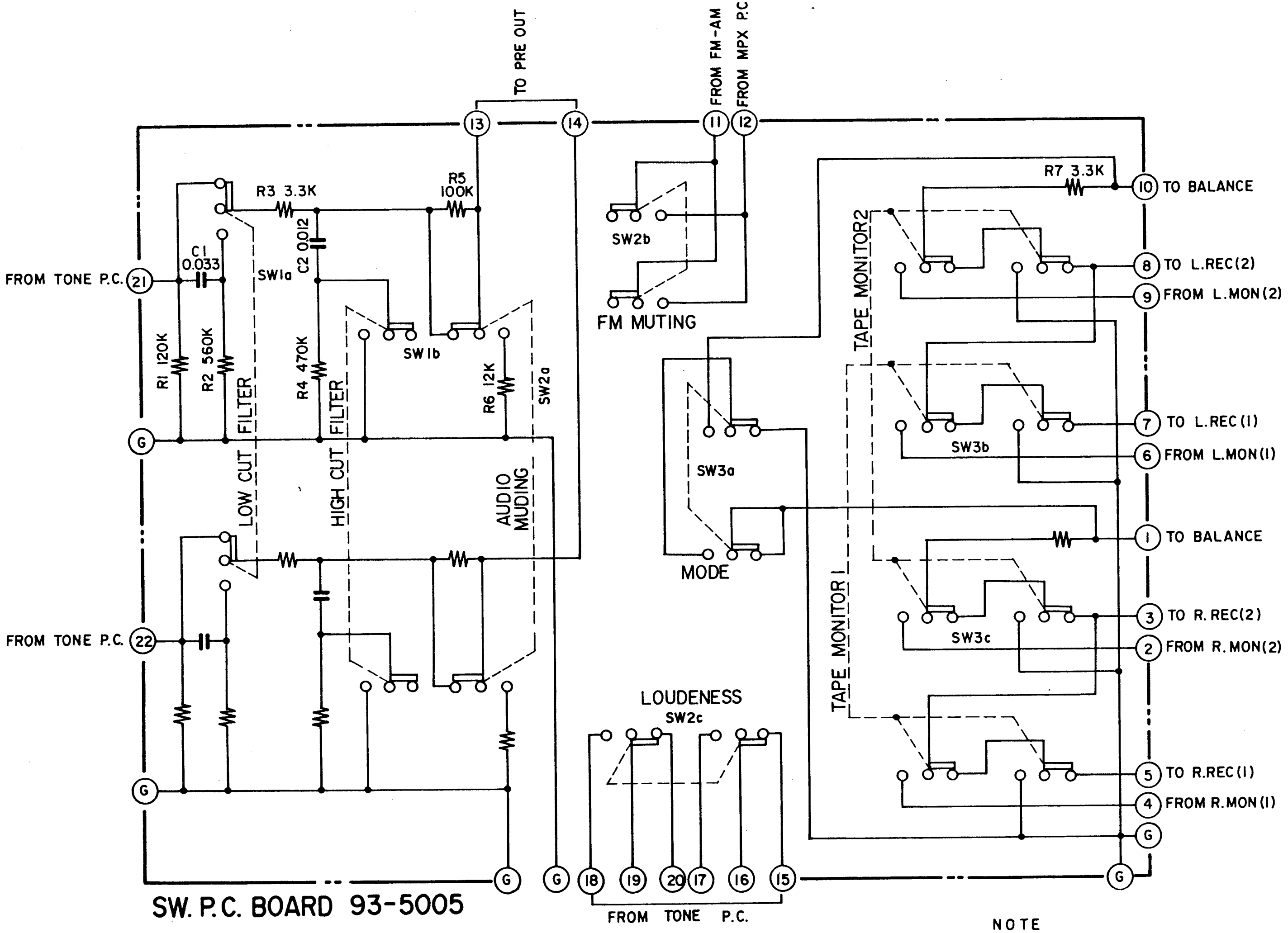
SW. P.C. BOARD 94-5020

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V.(J)
LL INDICATES LOW LEAKAGE CAPACITORS

SCHAMATIC 12

9. SWITCH P.C. BOARD 93-5005

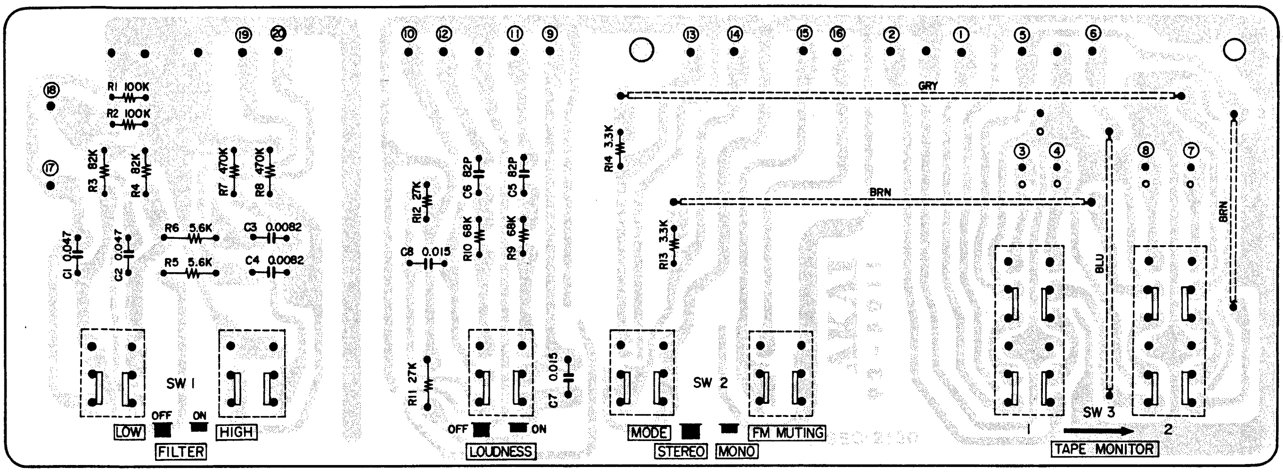

㉑
⑳
⑲
⑱
⑰
⑯
⑮
⑫
⑪
⑩
⑨
⑧
⑦
⑥
⑤
④
③
②
①
⑬
⑭
㉒
C1 0.033
R1 120K
R2 560K
R3 3.3K
C2 0.012
R4 470K
C1b 0.033
R1b 120K
R2b 560K
R3b 3.3K
C2b 0.012
R4b 470K
R5 100K
R6 12K
R5b 100K
R6b 12K
R7b 3.3K
R7 3.3K
SW1a
LOW
SW1b
HIGH
SW2c
LOUDNESS
SW2a
AUDIO MUTE
SW2d
FM MUTE
SW3b
SW3c
TAPE MONITOR
SW3a
MODE
AKAI 93-5005


TO PRE OUT
FROM FM-AM IF P.C.
FROM MPX P.C.
13
14
11
12
R3 3.3K
R5 100K
C1 0.033
C2 0.012
SW1a
SW1b
SW2a
SW2b
FM MUTING
FROM TONE P.C. 21
FROM TONE P.C. 22
R1 120K
R2 560K
R4 470K
R6 12K
LOW CUT FILTER
HIGH CUT FILTER
AUDIO MUDING
G
R7 3.3K
10 TO BALANCE
8 TO L.REC(2)
9 FROM L.MON(2)
7 TO L.REC(1)
6 FROM L.MON(1)
1 TO BALANCE
3 TO R.REC(2)
2 FROM R.MON(2)
5 TO R.REC(1)
4 FROM R.MON(1)
TAPE MONITOR2
TAPE MONITOR 1
SW3a
SW3b
SW3c
MODE
LOUDENESS
SW2c
18
19
20
17
16
15
FROM TONE P.C.
SW. P.C. BOARD 93-5005

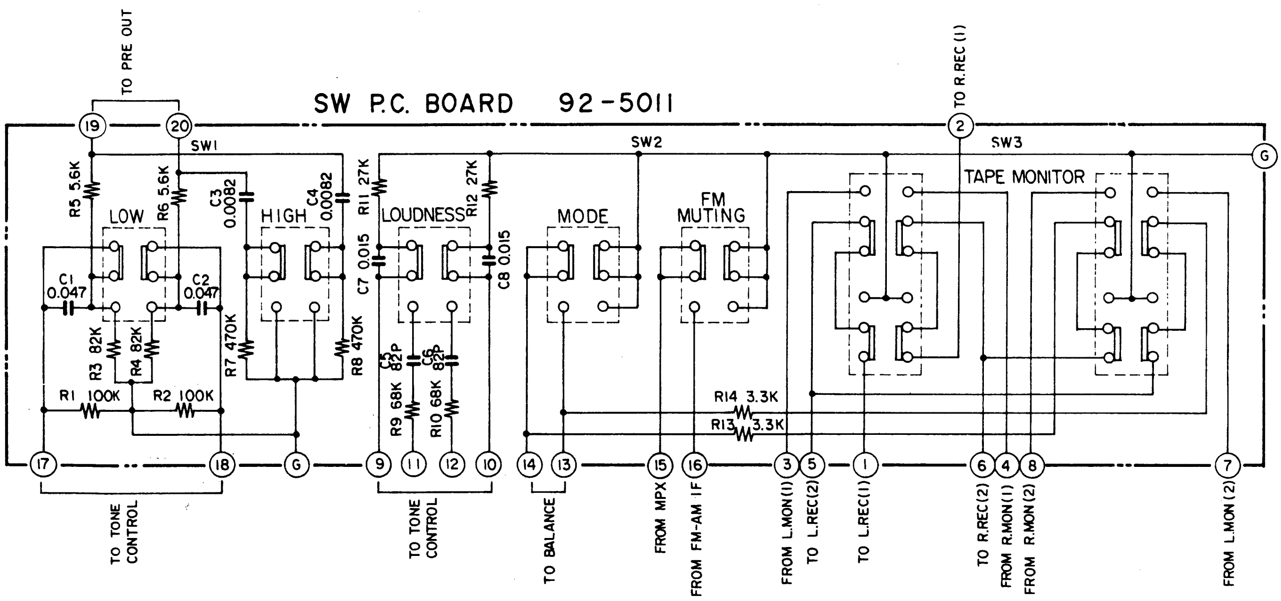
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHAMTIC 13

10. SWITCH P.C. BOARD 92-5011



R1 100K
R2 100K
R3 82K
R4 82K
R7 470K
R8 470K
R6 5.6K
R5 5.6K
C3 0.0082
C4 0.0082
C1 0.047
C2 0.047
SW 1
OFF
ON
LOW
HIGH
FILTER
R12 27K
C6 82P
C5 82P
R10 68K
R9 68K
C8 0.015
R11 27K
C7 0.015
OFF
ON
LOUDNESS
R14 3.3K
R13 3.3K
GRY
BRN
BLU
BRN
SW 2
MODE
STEREO
MONO
FM MUTING
SW 3
1
2
TAPE MONITOR

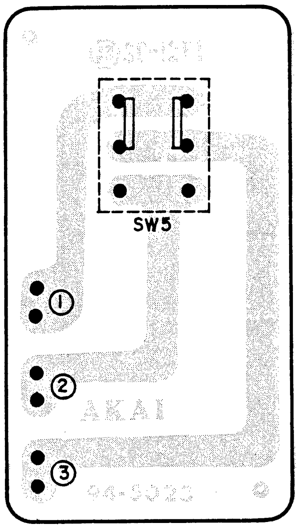


TO PRE OUT
SW P.C. BOARD 92-5011
TO R.REC (1)
SW1
SW2
SW3
R5 5.6K
R6 5.6K
C3 0.0082
C4 0.0082
LOW
HIGH
C1 0.047
C2 0.047
R3 82K
R4 82K
R7 470K
R8 470K
R1 100K
R2 100K
R11 27K
R12 27K
LOUDNESS
C7 0.015
C8 0.015
C5 82P
C6 82P
R9 68K
R10 68K
MODE
FM MUTING
TAPE MONITOR
R14 3.3K
R13 3.3K
TO TONE CONTROL
TO TONE CONTROL
TO BALANCE
FROM MPX
FROM FM-AM IF
FROM L.MON(1)
TO L.REC(2)
TO L.REC(1)
TO R.REC(2)
FROM R.MON(1)
FROM R.MON(2)
FROM L.MON(2)

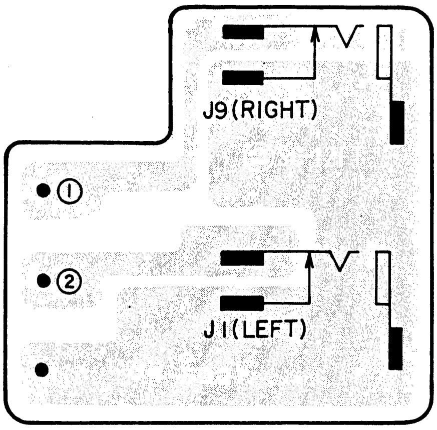
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHAMATIC 14

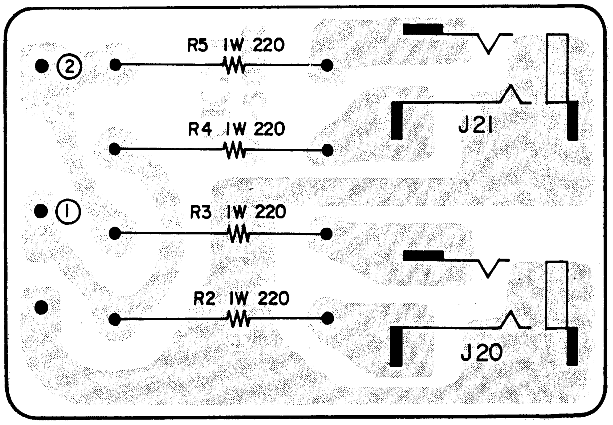
11. DIMMER P.C. BOARD 94-5023


SW5
①
②
③
AKAI
94-5023

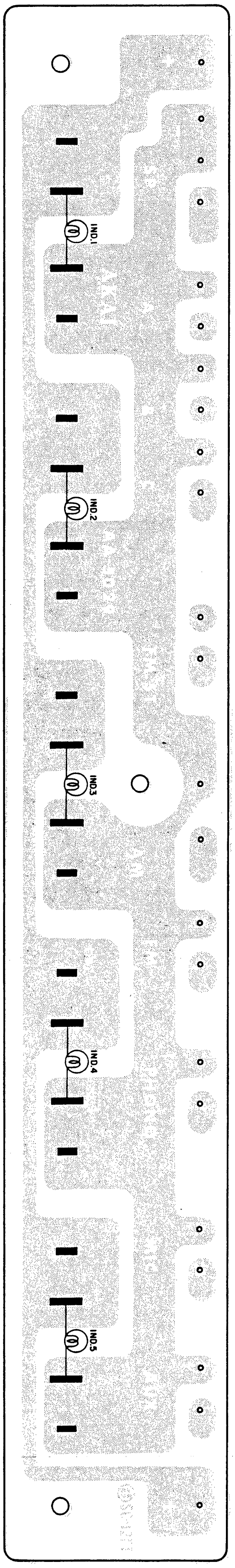
12. MIC. P.C. BOARD 94-5021


J9(RIGHT)
①
②
J1(LEFT)

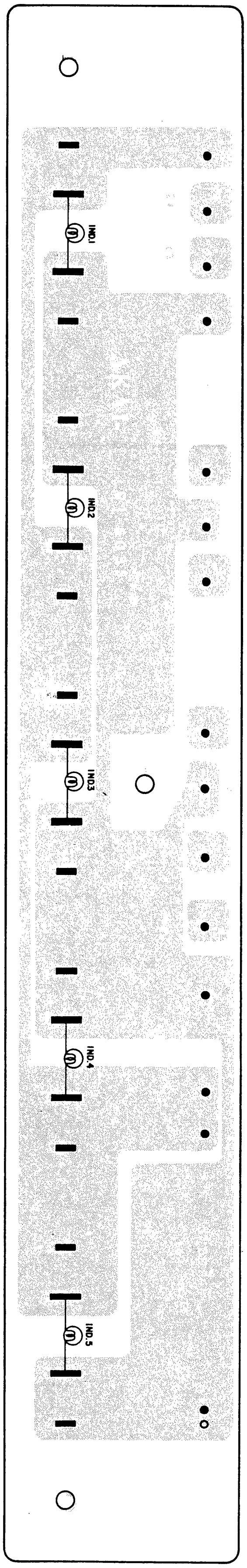
13. PHONE P.C. BOARD 94-5022


②
R5 1W 220
R4 1W 220
①
R3 1W 220
R2 1W 220
J21
J20

14. DIAL ILLUMINATION P.C. BOARD AA-5029


IND.1
IND.2
IND.3
IND.4
IND.5

15. DIAL ILLUMINATION P.C. BOARD 91-5035


IND.1
IND.2
IND.3
IND.4
IND.5

SECTION 2

PARTS LIST

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HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.

The reference number corresponds with illustration or photo number of that particular parts list.

This number corresponds with the Figure Number.

This number corresponds with the individual parts index number in that figure.

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

12-115x

Schematic Diagram Number of individual manufactured part.
(not required for parts order)

Quantity of particular part required.

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
		FLYWHEEL BLOCK #13		
12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
   It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

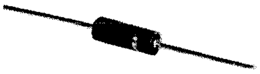
NOTE: In the parts list US-A is the chief standard. Parts used in other than US-A standard areas are itemized by region. Parts not itemized by region can be used in all areas.

Standard		Packing Carton Sticker	AC Cord	Region
US	US-A	AAL 120V	AC Cord CUL	AAL
		EP 110V	AC Cord CUL	PX
	US-B	PRESET 220V	AC Cord CUL	Holland
		PRESET 110V	AC Cord CUL	110V Area
		PRESET 240V 3 CORE	3 Core without Plug	3 Core Area
		WG 220V	HEW-P79	WG
	CSA	CSA 120V	AC Cord CUL	CSA
	CEE	CEE 220V	HEW-P65	CEE
J		J 100V	AC Cord Domestic	Domestic
A		SA 240V 3 CORE	3 Core without Plug	South Africa

ELECTRICAL PARTS TABLE

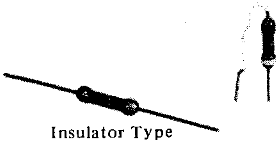
Because the indication of resistors and capacitors in the P. C. Board photos are being eliminated, please confirm parts name and shape by comparing them with the parts shown in this table.

1



Solid Resistor

2

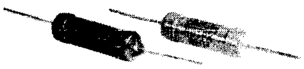


Stopper Type

Insulator Type

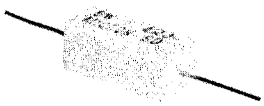
Carbon Resistor

3



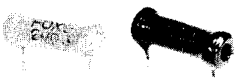
Metal Oxide Film Resistor

4



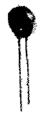
Cement Resistor

5



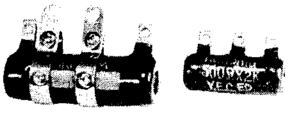
Wire-Wound Resistor

6



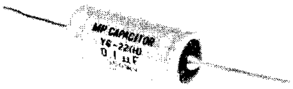
Thermister

7



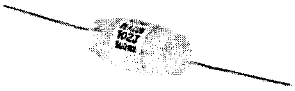
Enamel Resistor

1



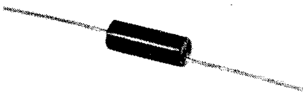
MP Capacitor (Tubular Type)

2



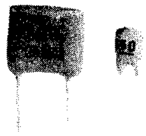
Plastic Capacitor

3



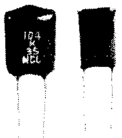
Mylar Capacitor

4



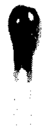
VFM (Hi-Q) Capacitor

5



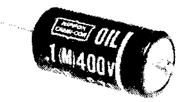
Mylar Capacitor

6



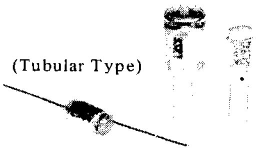
Tantalum Capacitor

7



Oil Capacitor (Tubular Type)

8

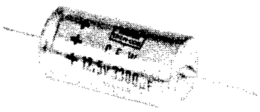


Vertical Type

(Tubular Type)

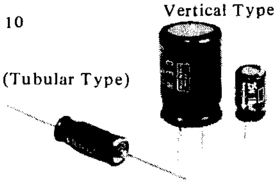
Styrol Capacitor

9



Electrolytic Capacitor (Tubular Type)

10

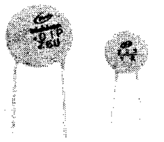


Vertical Type

(Tubular Type)

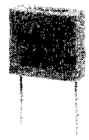
Electrolytic Capacitor

11



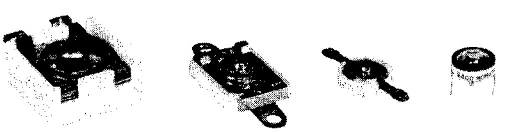
Ceramic Capacitor

12



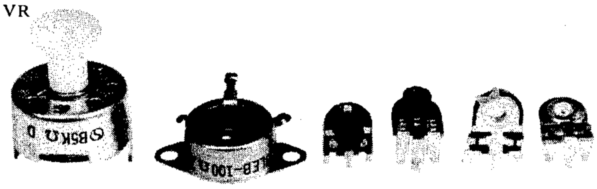
Metalized Mylar (Paper) Capacitor

13



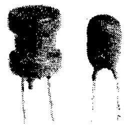
Trimmer Condenser

VR



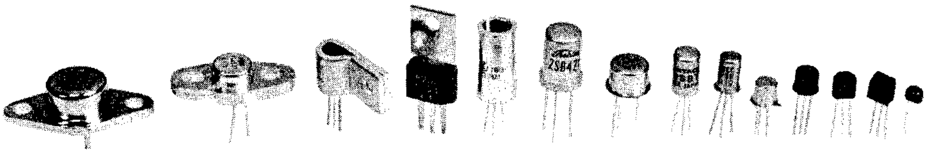
Semi-Fixed Volume

L



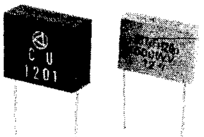
Ferri Inductor

TR



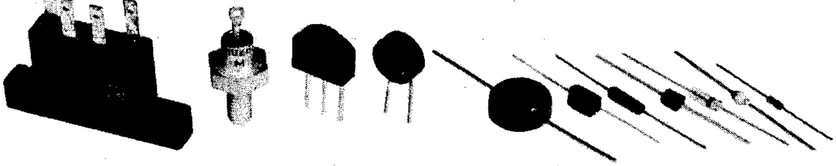
Transistor

CR



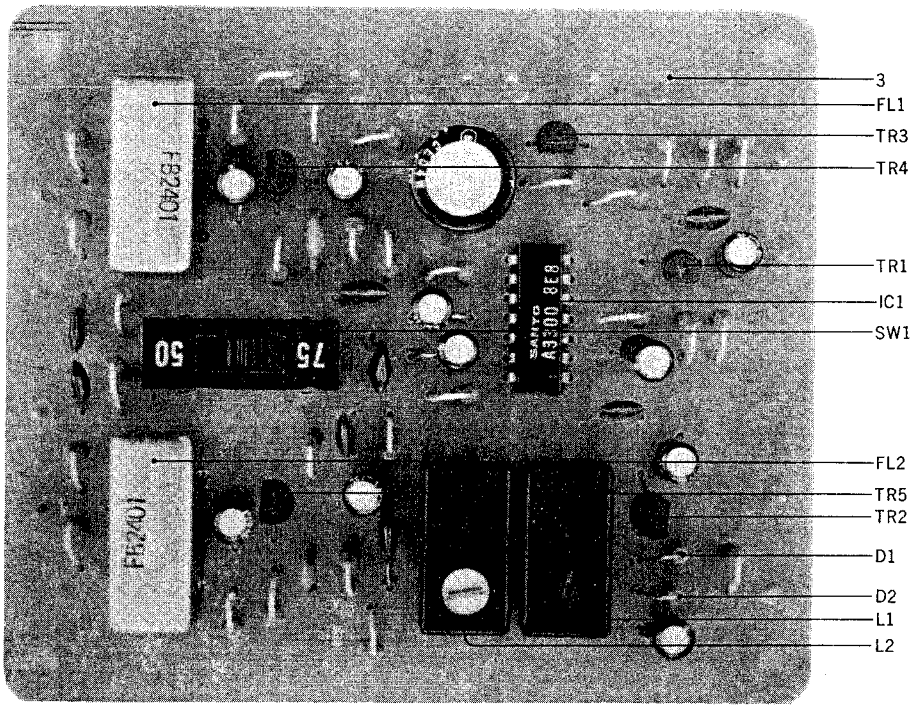
Spark Quencher

D



Diode (Silicon, Zener, Germanium)

FIG. 1 PHOTO OF MPX P.C. BOARD (94-5008)

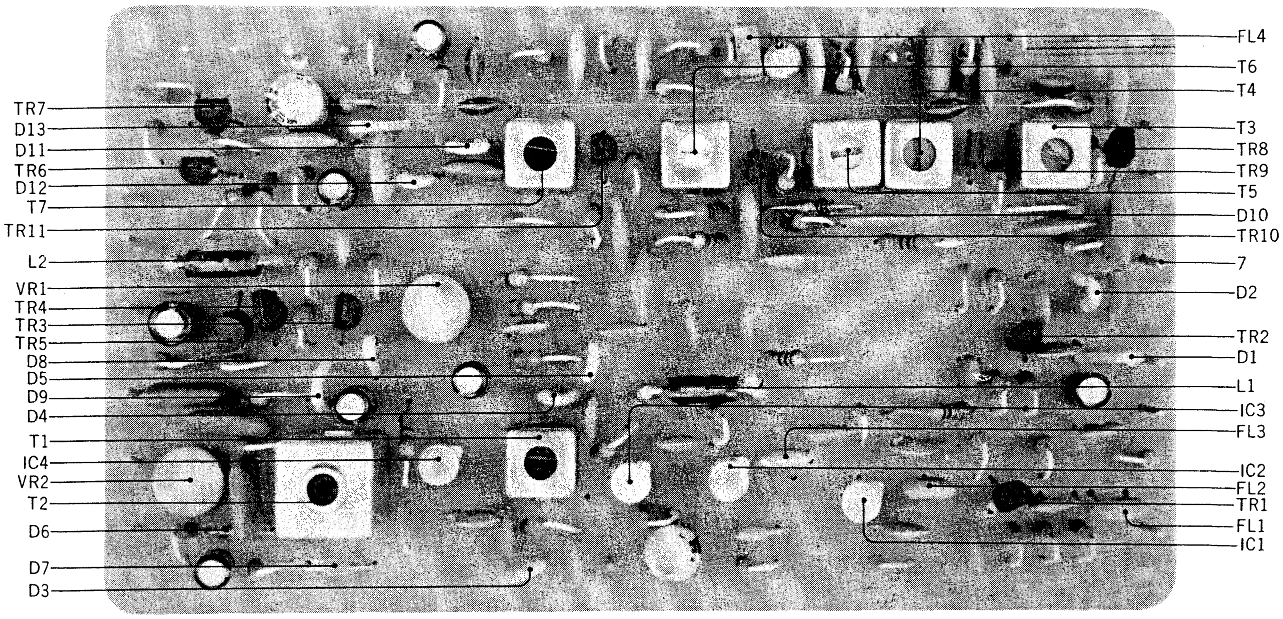


MPX P.C. BOARD (94-5008) BLOCK

Symbol No.	Parts No.	Description	Q'ty
1-1x	BA554477	MPX P.C. Board Comp. (94-5008)	1
1-2x	BA556604	MPX P.C. Board Comp. (94-5008) (920)	1
1-IC1	EI443744	I.C. LA-3300	1
1-TR1	ET552870	FET Transistor 2SK30(Y)(GR)	1
1-TR2, 3	ET453486	Transistor 2SC711(E) (F)	2
1-TR4, 5	ET539987	Transistor 2SC1312(F) (G)	2
1-D1, 2	ED219464	Germanium Diode 1N34A	2
1-L1	EO443766	Coil (19KC) 02-1070-03 1070(black)	1
1-L2	EO443777	Coil (38KC) 02-1064-03 1064(white)	1
1-FL1, 2	ER512201	Filter FB-24	2
1-SW1	ES513922	Slide SW. SSB02242	1
1-3	EJ539662	Lapping Post 1x17	15
		Capacitor, Vertical Type	
1-C1	EC331828	Elect. 3.3µF 25WV	1
1-C2	EC250841	Mylar 0.01µF(J) 50WV	1
1-C3	EC313244	Elect. 1µF 16WV	1
1-C4	EC331828	Elect. 3.3µF 25WV	1
1-C5	EC339096	Elect. 470µF 16WV	1
1-C6	EC389474	Mylar 0.0015µF(J) 50WV	1
1-C7	EC350706	Elect. 4.7µF 16WV	1
1-C8, 9	EC220432	Elect. 2.2µF 25WV	2
1-C10,11	EC337500	Mylar 0.0047µF(J) 50WV	2
1-C12,13	EC250975	Mylar 0.015µF(J) 50WV	2
1-C14,15	EC220432	Elect. 2.2µF 25WV	2
1-C16,17	EC551463	Ceramic DD600 YW 0.001µF(Z) 50WV	2
1-C18,19	EC350706	Elect. 4.7µF 16WV	2
1-C20,21	EC380621	Mylar 0.0068µF(J) 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
1-R1	ER346994	Carbon RD1/4 18k(J)	1
1-R2	ER357491	Carbon RD1/4 82k(J)	1
1-R3	ER496214	Carbon RD1/4 360k(J)	1
1-R4	ER419040	Carbon RD1/4 1M(J)	1
1-R5	ER357491	Carbon RD1/4 82k(J)	1
1-R6	ER496214	Carbon RD1/4 360k(J)	1
1-R7	ER336442	Carbon RD1/4 10k(J)	1
1-R8	ER211465	Carbon RD1/4 1k(J)	1
1-R9,10	ER343078	Carbon RD1/4 2.7k(J)	2
1-R11	ER357456	Carbon RD1/4 2.2k(J)	1
1-R12,13	ER346601	Carbon RD1/4 47k(J)	2
1-R14,15	ER211465	Carbon RD1/4 1k(J)	2
1-R16to19	ER380711	Carbon RD1/4 220k(J)	4
1-R20,21	ER212883	Carbon RD1/4 4.7k(J)	2
1-R22,23	ER371946	Carbon RD1/4 2k(J)	2
1-R24	ER212681	Carbon RD1/4 330(J)	1
1-R25,26	ER212883	Carbon RD1/4 4.7k(J)	2
1-R27,28	ER346601	Carbon RD1/4 47k(J)	2
1-R27,28	ER211858	Carbon RD1/4 12k(J) (920)	2
1-R29,30	ER212264	Carbon RD1/4 22k(J)	2
1-R29,30	ER211465	Carbon RD1/4 1k(J) (920)	2

FIG. 2 PHOTO OF IF P.C. BOARD (94-5009)



IF P.C. BOARD (94-5009) BLOCK

Symbol No.	Parts No.	Description	Q'ty
2-1x	BA557458	IF P.C. Board Comp. (94-5009) (940)	1
2-2x	BA563848	IF P.C. Board Comp. (94-5009) (940US-B)	1
2-3x	BA554455	IF P.C. Board Comp. (94-5009) (930)	1
2-4x	BA563826	IF P.C. Board Comp. (94-5009) (930US-B)	1
2-5x	BA556593	IF P.C. Board Comp. (94-5009) (920)	1
2-6x	BA563837	IF P.C. Board Comp. (94-5009) (920US-B)	1
2-IC1 to 4	EI469967	I.C. LA-1221	4
2-TR1, 2	ET520334	Transistor 2SC922(L)	2
2-TR3 to 7	ET380834	Transistor 2SC711(E)	5
2-TR8 to 11	ET551384	Transistor 2SC839(H)	4
2-D1 to 5	ED428264	Germanium Diode 1N60	5
2-D6, 7	ED379855	Germanium Diode 1N60P	2
2-D8	ED514721	Silicon Diode WG-599	1
2-D9 to 13	ED219464	Germanium Diode 1N34A	5
2-T1	BT551406	Trans. 05M-033-1329	1
2-T2	EO551395	FM Discri Coil 05M-033-1352B	1
2-T3	EO551417	AM-RF Coil 05M-033-1326	1
2-T4	EO551428	AM-OSC Coil 05M-033-1327	1
2-T5	BT379991	Trans. HI-137S(yellow)	1
2-T6	BT380384	Trans. HI-134S(white)	1
2-T7	BT443610	Trans. HI-144S(black)	1
2-FL1,2,3	EI539818	Filter SFE-10.7MA5	3
2-FL4	ER380406	Filter BFB 455B-5	1
2-FL4	ER380417	Filter BFB 464-A (US-B)	1
2-L1, 2	EO539820	Peaking Coil 2.2μH(K)	2
2-VR1	EV380215	Semi-fixed Vol. SR19R 100 kB (Solid type)	1
2-VR2	EV551452	Semi-fixed Vol. SR19R 22 kB (Solid type)	1
2-7	EJ539662	Lapping Post 1x17	20
		Capacitor, Vertical Type	
2-C1, 2, 3	EC551441	Ceramic DD600 YM 0.01μF(Z) 50WV	3
2-C4	EC368256	Elect. 0.47μF 25WV	1
2-C5, 6, 7	EC551441	Ceramic DD600 YM 0.01μF(Z) 50WV	3
2-C8	EC443654	VFM 15PF(K) 50WV	1
2-C9 to 17	EC551441	Ceramic DD600 YM 0.01μF(Z) 50WV	9
2-C18	EC336104	Elect. 100μF 6.3WV	1
2-C19, 20	EC551441	Ceramic DD600 YM 0.01μF(Z) 50WV	2
2-C21, 22	EC336216	VFM 330PF(J) 50WV	2
2-C23	EC450527	Elect. 4.7μF 25WV	1
2-C24	EC336216	VFM 330PF(J) 50WV	1
2-C25	EC329771	Elect. 47μF 6.3WV	1
2-C26	EC313108	Elect. 1μF 50WV	1
2-C27	EC290531	VFM 100PF(K) 50WV	1
2-C28, 29	EC551441	Ceramic DD600 YM 0.01μF(Z) 50WV	2
2-C30	EC313108	Elect. 1μF 50WV	1
2-C31, 32	EC551441	Ceramic DD600 YM 0.01μF(Z) 50WV	2
2-C33	EC450527	Elect. 4.7μF 25WV	1
2-C34, 35	EC492142	Ceramic DD512 0.047μF(YM) 50WV	2
2-C36	EC427948	VFM 10PF(J) 50WV	1
2-C37, 38	EC492142	Ceramic DD512 0.047μF(YM) 50WV	2
2-C39	EC250841	Mylar 0.01μF(J) 50WV	1
2-C40	EC443632	VFM 430PF(J) 50WV	1
2-C41	EC492142	Ceramic DD512 0.047μF(YM) 50WV	1
2-C43,44,45	EC492142	Ceramic DD512 0.047μF(YM) 50WV	3
2-C46	EC450527	Elect. 4.7μF 25WV	1
2-C47 to 51	EC492142	Ceramic DD512 0.047μF(YM) 50WV	5
2-C52	EC329850	VFM 220PF(J) 50WV	1
2-C53, 54	EC492142	Ceramic DD512 0.047μF(YM) 50WV	2
2-C55	EC336104	Elect. 100μF 6.3WV	1
2-C56, 57	EC250841	Mylar 0.01μF(J) 50WV	2
2-C58	EC450527	Elect. 4.7μF 25WV	1

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
2-R1	ER211667	Carbon RD1/4 100(J)	1
2-R2	ER212681	Carbon RD1/4 330(J)	1
2-R3	ER306887	Carbon RD1/4 15k(J)	1
2-R4	ER212872	Carbon RD1/4 4.3k(J)	1
2-R5	ER212681	Carbon RD1/4 330(J)	1
2-R6	ER211465	Carbon RD1/4 1k(J)	1
2-R7	ER212883	Carbon RD1/4 4.7k(J)	1
2-R8	ER306843	Carbon RD1/4 1.2k(J)	1
2-R9	ER357491	Carbon RD1/4 82k(J)	1
2-R10	ER306887	Carbon RD1/4 15k(J)	1
2-R11, 12	ER212681	Carbon RD1/4 330(J)	2
2-R13	ER304290	Carbon RD1/4 10(J)	1
2-R14	ER212681	Carbon RD1/4 330(J)	1
2-R15	ER371946	Carbon RD1/4 2k(J)	1
2-R16, 17	ER304290	Carbon RD1/4 10(J)	2
2-R18	ER380913	Carbon RD1/4 33(J)	1
2-R19	ER399060	Carbon RD1/4 9.1k(J)	1
2-R20	ER347073	Carbon RD1/4 200(J)	1
2-R21, 22	ER211465	Carbon RD1/4 1k(J)	2
2-R23	ER211667	Carbon RD1/4 100(J)	1
2-R24	ER211858	Carbon RD1/4 12k(J)	1
2-R25	ER349907	Carbon RD1/4 33k(J)	1
2-R26	ER211757	Carbon RD1/4 100k(J)	1
2-R27	ER212264	Carbon RD1/4 22k(J)	1
2-R28	ER430086	Carbon RD1/4 560k(J)	1
2-R29	ER349907	Carbon RD1/4 33k(J)	1
2-R30	ER392850	Carbon RD1/4 390k (J)	1
2-R31	ER336442	Carbon RD1/4 10k(J)	1
2-R32	ER212477	Carbon RD1/4 3.3k(J)	1
2-R33	ER211858	Carbon RD1/4 12k(J)	1
2-R34	ER212681	Carbon RD1/4 330(J)	1
2-R35, 36	ER336442	Carbon RD1/4 10k(J)	2
2-R37	ER357456	Carbon RD1/4 2.2k(J)	1
2-R38	ER211465	Carbon RD1/4 1k(J)	1
2-R39	ER212264	Carbon RD1/4 22k(J)	1
2-R40	ER211667	Carbon RD1/4 100(J)	1
2-R41	ER342933	Carbon RD1/4 27k(J)	1
2-R42	ER212883	Carbon RD1/4 4.7k(J)	1
2-R43	ER357570	Carbon RD1/4 150k(J)	1
2-R44	ER304290	Carbon RD1/4 10(J)	1
2-R45	ER357456	Carbon RD1/4 2.2k(J)	1
2-R46	ER211465	Carbon RD1/4 1k(J)	1
2-R47	ER211757	Carbon RD1/4 100k(J)	1
2-R48	ER304290	Carbon RD1/4 10(J)	1
2-R49	ER211667	Carbon RD1/4 100(J)	1
2-R50, 51	ER211465	Carbon RD1/4 1k(J)	2
2-R52	ER211667	Carbon RD1/4 100(J)	1
2-R53	ER419556	Carbon RD1/4 43k(J)	1
2-R54	ER336442	Carbon RD1/4 10k(J)	1
2-R55	ER407316	Carbon RD1/4 24k(J)	1
2-R56, 57	ER211465	Carbon RD1/4 1k(J)	2
2-R58	ER211667	Carbon RD1/4 100(J)	1
2-R59	ER304402	Carbon RD1/4 470(J)	1
2-R60	ER306887	Carbon RD1/4 15k(J)	1
2-R60	ER349907	Carbon RD1/4 33k(J) (920)	1
2-R61	ER556784	Carbon RD1/4 91k(J)(Insu. type)	1
2-R61	ER213794	Carbon RD1/4 120k(J)(Insu. type) (920)	1
2-R62	ER357456	Carbon RD1/4 2.2k(J)	1
2-R62	ER211465	Carbon RD1/4 1k(J) (920)	1

FIG. 3 PHOTO OF MIC. P.C. BOARD (94-5021)

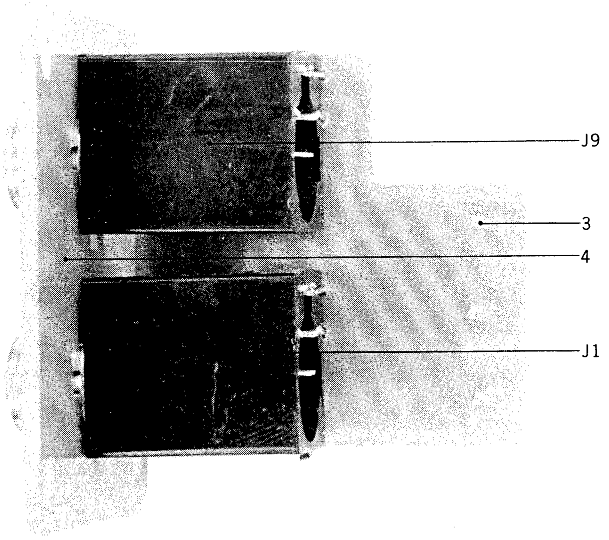
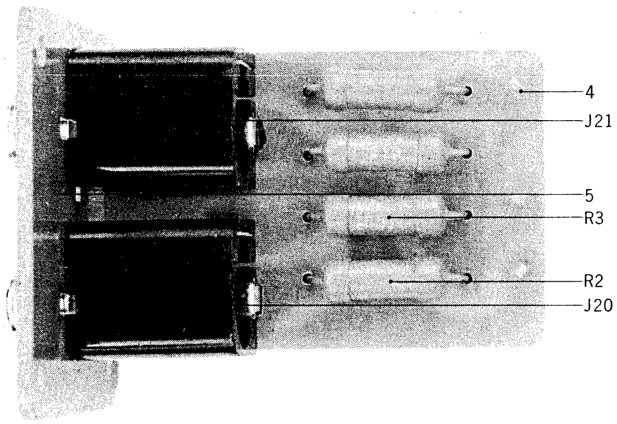


FIG. 4 PHOTO OF PHONE P.C. BOARD (94-5022)



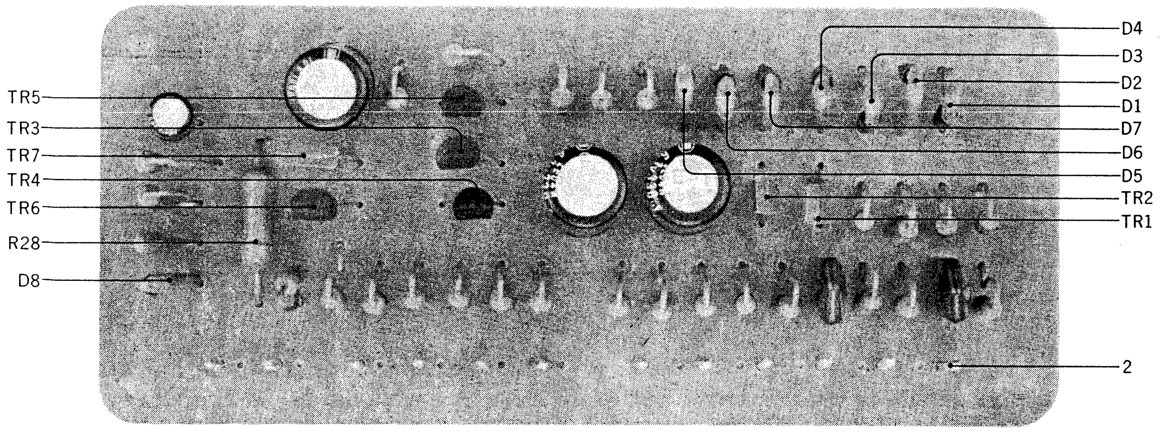
MIC. P.C. BOARD (94-5021) BLOCK

Symbol No.	Parts No.	Description	Q'ty
3-1x	BA554286	Mic. P.C. Board Comp. (94-5021)	1
3-2x	BA556323	Mic. P.C. Board Comp. (94-5021) (920)	1
3-J1, 9	EJ437310	Mic. Jack 2PMJ1P	2
3-3	EJ539662	Lapping Post 1x17	3
3-4	AZ530728	Jack Mt. Plate	1
3-5	ZW434597	Washer (ALP)D9.3x14.2x0.7t	2
3-6	ZW560237	E Jack Nut	2

PHONE P.C. BOARD (94-5022) BLOCK

Symbol No.	Parts No.	Description	Q'ty
4-1x	BA554275	Phone P.C. Board Comp. (94-5022)	1
4-2x	BA554264	Phone P.C. Board Comp. (94-5022) (930)	1
4-3x	BA556312	Phone P.C. Board Comp. (94-5022) (920)	1
4-J20, 21	EJ391083	Mic. Jack 3PMJ1P	2
4-4	EJ539662	Lapping Post 1x17	3
4-5	AZ530728	Jack Mt. Plate	1
4-6	ZW434597	Washer (ALP)D9.3x14.2x0.7t	2
4-7	ZW560237	E Jack Nut	2
		Resistor, Stopper Type	
4-R2, 3	ER429715	Metal Oxide Film 1W 220(J)	2
4-R2, 3	ER515070	Metal Oxide Film 2W 150(K) (920)	2
4-R4, 5	ER429715	Metal Oxide Film 1W 220(J)	2

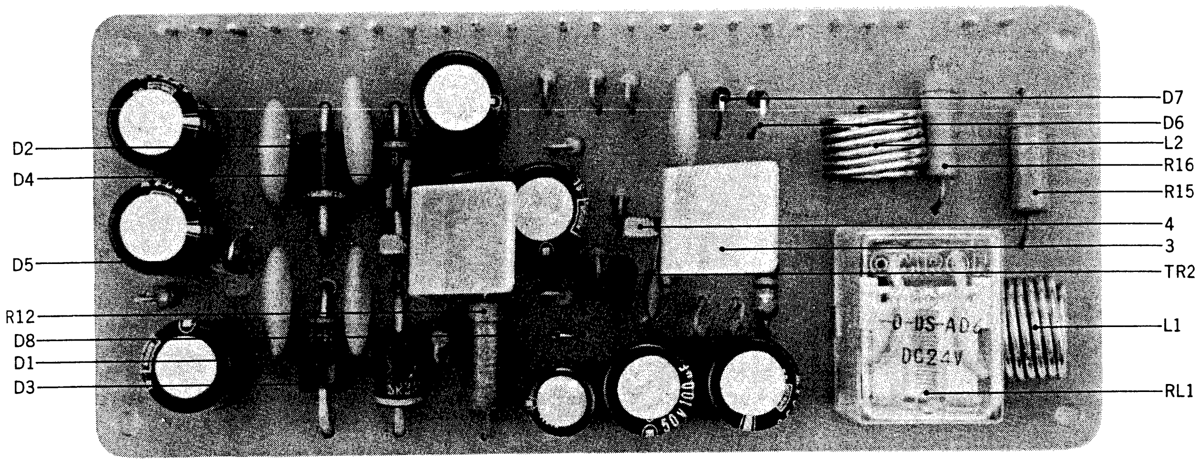
FIG. 5 PHOTO OF PROTECTOR P.C. BOARD (94-5010)



PROTECTOR P.C. BOARD (94-5010) BLOCK

Symbol No.	Parts No.	Description	Q'ty
5-1x	BA554488	Protector P.C. Board Comp. (94-5010)	1
5-TR1, 2	ET552690	Transistor 2SC983(O) (Y)	2
5-TR3, 4	ET398711	Transistor 2SC945(Q) (R)	2
5-TR5	ET552701	Transistor 2SA641(L) (M)	1
5-TR6	ET398711	Transistor 2SC945(Q) (R)	1
5-TR7	ET552688	Transistor 2SC495(O) (Y)	1
5-D1 to 7	ED224548	Silicon Diode 10D2	7
5-D8	ED224526	Silicon Diode 10D1	1
5-2	EJ539662	Lapping Post 1x17	12
		Capacitor, Vertical Type	
5-C1, 2	EC368357	Mylar 0.056μF(J) 50WV	2
5-C3, 4	EC343236	Elect. 330μF 6.3WV	2
5-C5	EC220127	Elect. 100μF 16WV	1
5-C6	EC450527	Elect. 4.7μF 25WV	1
		Resistor, Stopper Type	
5-R1 to 4	ER343078	Carbon RD1/4 2.7k(J)	4
5-R5 to 10	ER306887	Carbon RD1/4 15k(J)	6
5-R11	ER357570	Carbon RD1/4 150k(J)	1
5-R12	ER380913	Carbon RD1/4 33(J)	1
5-R13	ER306887	Carbon RD1/4 15k(J)	1
5-R14	ER357570	Carbon RD1/4 150k(J)	1
5-R15	ER379675	Carbon RD1/4 51k(J)	1
5-R16	ER306887	Carbon RD1/4 15k(J)	1
5-R17	ER349942	Carbon RD1/4 8.2k(J)	1
5-R18	ER443935	Carbon RD1/4 30(J)	1
5-R19	ER357456	Carbon RD1/4 2.2k(J)	1
5-R20, 21	ER399644	Carbon RD1/4 82(J)	2
5-R22	ER357456	Carbon RD1/4 2.2k(J)	1
5-R23	ER379675	Carbon RD1/4 51k(J)	1
5-R24	ER379675	Carbon RD1/4 51k(J)	1
5-R25	ER213030	Carbon RD1/4 5.6k(J)	1
5-R26	ER306887	Carbon RD1/4 15k(J)	1
5-R27	ER352045	Carbon RD1/4 3.9k(J)	1
5-R28	ER429715	Metal Oxide Film 1W 220(J)	1

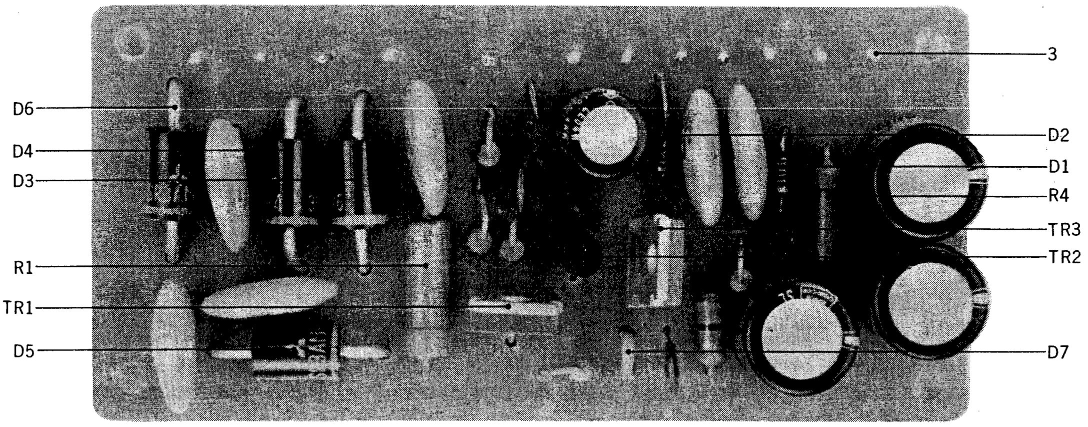
FIG. 6 PHOTO OF POWER SUPPLY P.C. BOARD (94-5011)



POWER SUPPLY P.C. BOARD (94-5011) BLOCK

Symbol No.	Parts No.	Description	Q'ty
6-1x	BA554545	Power Supply P.C. Board Comp. (94-5011)	1
6-2x	BA575368	Power Supply P.C. Board Comp. (94-5011) (CSA,CEE)	1
6-TR1	ET452531	Transistor 2SD313(E) (F)	1
6-TR2	ET453486	Transistor 2SC711(E) (F)	1
6-TR3	ET452531	Transistor 2SD313(E) (F)	1
6-D1 to 4	ED551700	Power Diode SR3AM-8	4
6-D5, 6, 7	ED224548	Silicon Diode 10D2	3
6-D8	ED539976	Zener Diode WZ-130	1
6-L1, 2	EO551711	Phase Correction Coil 2.2μH	2
6-3	EZ532203	Power Heat-sink Plate	2
6-4	ZS554580	ISO Screw, binding head 3x8	2
6-FR1	ER575256	Fuse/R. FRN 1/2 10K 1A (CSA, CEE)	1
6-RL1	EP325585	Relay MY2-0-AD6 24V	1
		Capacitor, Vertical Type	
6-C1 to 5	EC551160	Ceramic NB821YZ 0.01μF(Z) 1.4kV	1
6-C6	EC220410	Elect. 1000μF 10WV	1
6-C7, 8	EC321221	Elect. 100μF 50WV	2
6-C9	EC372148	Elect. 220μF 35WV	1
6-C10	EC290531	VFM 100PF(K) 50WV	1
6-C11, 12	EC321221	Elect. 100μF 50WV	2
6-C13	EC321208	Elect. 220μF 16WV	1
6-C14	EC339096	Elect. 470μF 16WV	1
		Resistor, Stopper Type	
6-R1	ER458730	Carbon RD1/2 33(J) (Insu. type)	1
6-R2	ER452542	Carbon RD1/2 10(J) (Insu. type)	1
6-R3	ER211667	Carbon RD1/4 100(J)	1
6-R4	ER212681	Carbon RD1/4 330(J)	1
6-R5	ER211320	Carbon RD1/4 1.5k(J)	1
6-R6	ER357412	Carbon RD1/4 220(J)	1
6-R7	ER362485	Carbon RD1/4 330k(J)	1
6-R8	ER342933	Carbon RD1/4 27k(J)	1
6-R9	ER212264	Carbon RD1/4 22k(J)	1
6-R10	ER212477	Carbon RD1/4 3.3k(J)	1
6-R11	ER211320	Carbon RD1/4 1.5k(J)	1
6-R12	ER515092	Metal Oxide Film 2W 330(K)	1
6-R13	ER399723	Carbon RD1/4 4.7(J)	1
6-R14	ER212477	Carbon RD1/4 3.3k(J)	1
6-R15	ER551722	Metal Oxide Film 2W 10(K)	1
6-R16	ER551722	Metal Oxide Film 2W 10(K)	1

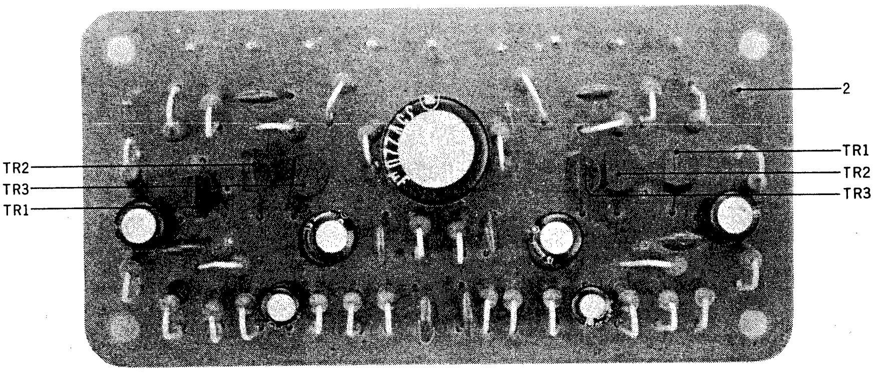
FIG. 7 PHOTO OF POWER SUPPLY P.C. BOARD (92-5004) (AA-920)



POWER SUPPLY P.C. BOARD (92-5004) BLOCK (AA-920)

Symbol No.	Parts No.	Description	Q'ty
7-1x	BA556424	Power Supply P.C. Board Comp. (92-5004) (920)	1
7-2x	BA564941	Power Supply P.C. Board Comp. (92-5004) (920CSA, CEE)	1
7-TR1	ET556086	Transistor 2SD313(D) (E)	1
7-TR2	ET398711	Transistor 2SC945(Q) (R)	1
7-TR3	ET556086	Transistor 2SD313(D) (E)	1
7-D1, 2	ED224526	Silicon Diode 10D1	2
7-D3 to 6	ED556110	Silicon Diode SR3AM-4	4
7-D7	ED539976	Zener Diode WZ-130	1
7-FR1	ER564412	Fuse/R. FRN 1/2 22(K) 150MA (CSA, CEE)	1
7-3	EJ539662	Lapping Post 1x17	12
		Capacitor, Vertical Type	
7-C1 to 6	EC551160	Ceramic NB821YZ 0.01μF(Z) 1.4kV	6
7-C7, 8	EC324538	Elect. 330μF 25WV	2
7-C9	EC321221	Elect. 100μF 50WV	1
7-C10, 11	EC250604	Mylar 0.001μF(K) 50WV	2
7-C12	EC220127	Elect. 100μF 16WV	1
7-C13	EC250604	Mylar 0.001μF(K) 50WV	1
		Resistor, Stopper Type	
7-R1	ER490836	Metal Oxide Film 2W 560(K)	1
7-R2	ER556042	Carbon RD1/4 22(J) (Insu. type)	1
7-R3	ER556097	Carbon RD1/4 5.6(J)	1
7-R4	ER449728	Metal Oxide Film 1W 560(K)	1
7-R5, 6	ER349907	Carbon RD1/4 33k(J)	2
7-R7	ER342933	Carbon RD1/4 27k(J)	2
7-R8	ER343078	Carbon RD1/4 2.7k(J)	1

FIG. 8 PHOTO OF EQ. P.C. BOARD (94-5012)

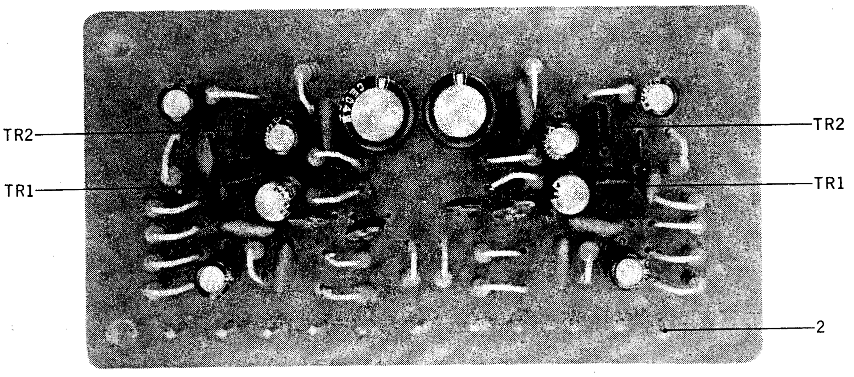


EQ. P.C. BOARD (94-5012) BLOCK

Symbol No.	Parts No.	Description	Q'ty
8-1x	BA554490	EQ. P.C. Board Comp. (94-5012)	1
8-TR1,2,3	ET539987	Transistor 2SC1312(F) (G)	6
8-2	EJ539662	Lapping Post 1x17	10
		Capacitor, Vertical Type	
8-C1	EC311793	Elect. 0.012μF(J) 50WV	2
8-C2	EC391004	Mylar 0.0033μF(J) 50WV	2
8-C3	EC450527	Elect. 4.7μF 25WV	2
8-C4	EC350875	Mylar 0.001μF(J) 50WV	2
8-C5	EC331705	Elect. 22μF 16WV	2
8-C6	EC336216	VFM 330PF(J) 50WV	2
8-C7	EC350875	Mylar 0.001μF(J) 50WV	2
8-C8	EC220994	Elect. 10μF 25WV	2
8-C9	EC372148	Elect. 220μF 35WV	1

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
8-R1	ER551507	Carbon RD1/4 10k(J)NL	2
8-R2	ER551531	Carbon RD1/4 2.2k(J)NL	2
8-R3	ER465276	Carbon RD1/4 270k(J)NL	2
8-R4	ER551518	Carbon RD1/4 22k(J)NL	2
8-R5	ER551496	Carbon RD1/4 47k(J)NL	2
8-R6	ER551474	Carbon RD1/4 1M(J)NL	2
8-R7	ER551553	Carbon RD1/4 510(J)NL	2
8-R8	ER551520	Carbon RD1/4 4.7k(J)NL	2
8-R9	ER550607	Carbon RD1/4 470k(J)NL	2
8-R10	ER551507	Carbon RD1/4 10k(J)NL	2
8-R11	ER551496	Carbon RD1/4 47k(J)NL	2
8-R12	ER551542	Carbon RD1/4 1k(J)NL	2
8-R13	ER551531	Carbon RD1/4 2.2k(J)NL	2
8-R14	ER551485	Carbon RD1/4 200k(J)NL	2
8-R15	ER551496	Carbon RD1/4 47k(J)NL	2

FIG. 9 PHOTO OF EQ. P.C. BOARD (92-5003) (AA-920)

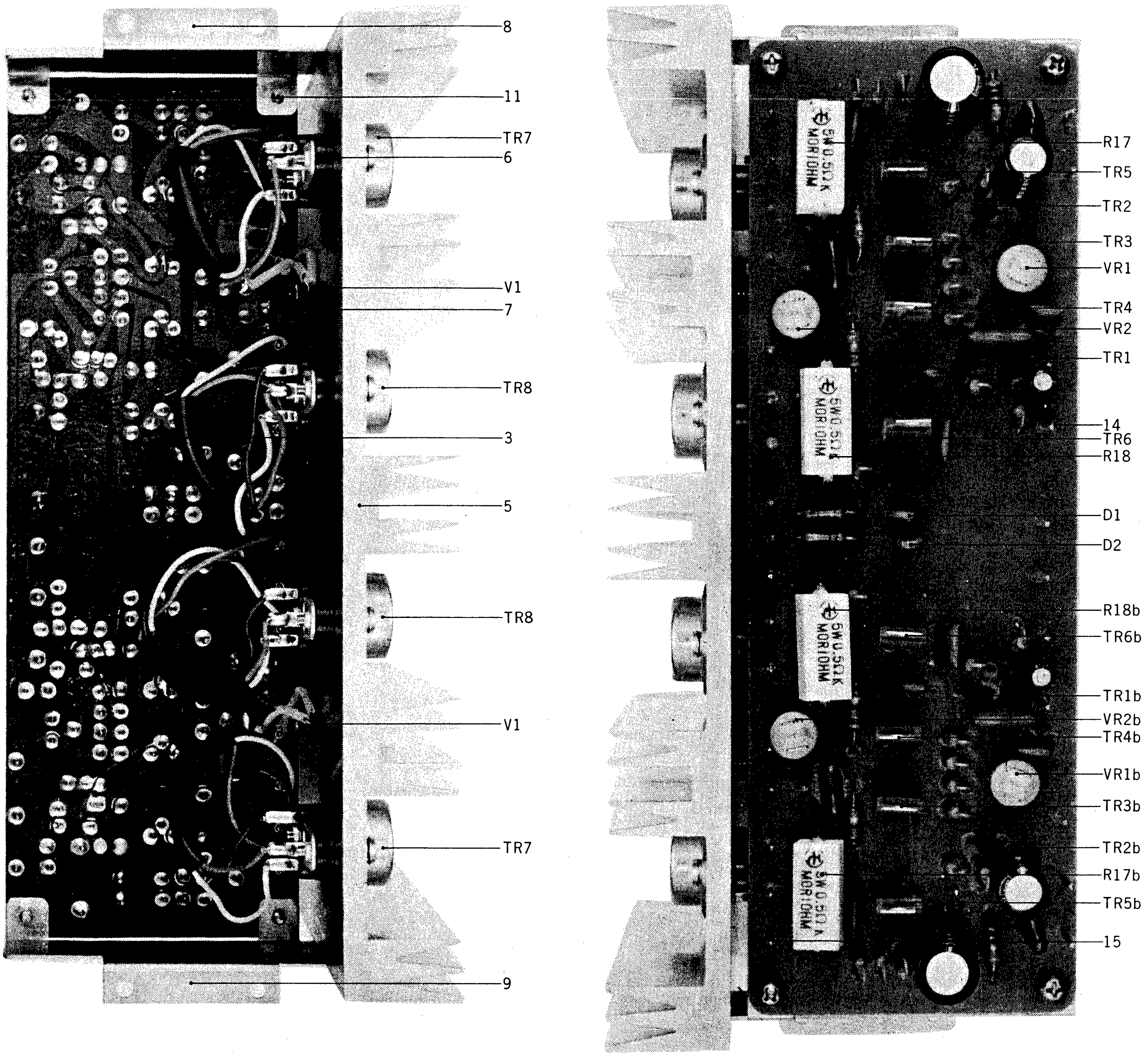


EQ. P.C. BOARD (92-5003) BLOCK (AA-920)

Symbol No.	Parts No.	Description	Q'ty
9-1x	BA556402	EQ. P.C. Board Comp. (92-5003) (920)	1
9-TR1, 2	ET550754	Transistor 2SC1312(G)	4
9-2	EJ539662	Lapping Post 1x17	19
		Capacitor, Vertical Type	
9-C1	EC455354	Elect. 100μF 35WV	2
9-C2	EC320051	Elect. 10μF 16WV	2
9-C3	EC556018	VFM 30PF(K) 50WV	2
9-C4, 5	EC290531	VFM 100PF(K) 50WV	4
9-C6	EC556007	Elect. 2.2μF 16WV	2
9-C7	EC368256	Elect. 0.47μF 25WV	2
9-C8	EC331828	Elect. 3.3μF 25WV	2
9-C9	EC250841	Mylar 0.01μF(J) 50WV	2
9-C10	EC379765	Mylar 0.0027μF(J) 50WV	2
9-C11	EC290531	VFM 100PF(K) 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
9-R1	ER211465	Carbon RD1/4 1k(J)	2
9-R2	ER350100	Carbon RD1/4 68k(J)	2
9-R3	ER212174	Carbon RD1/4 180k(J)	2
9-R4	ER450011	Carbon RD1/4 120k(J)	2
9-R5	ER213300	Carbon RD1/4 680(J)	2
9-R6	ER429996	Carbon RD1/4 470k(J)	2
9-R7	ER306887	Carbon RD1/4 15k(J)	2
9-R8	ER343078	Carbon RD1/4 2.7k(J)	2
9-R9	ER357456	Carbon RD1/4 2.2k(J)	2
9-R10	ER361528	Carbon RD1/4 56k(J)	2
9-R11	ER362485	Carbon RD1/4 330k(J)	2
9-R12	ER342933	Carbon RD1/4 27k(J)	2
9-R13	ER357535	Carbon RD1/4 39k(J)	2

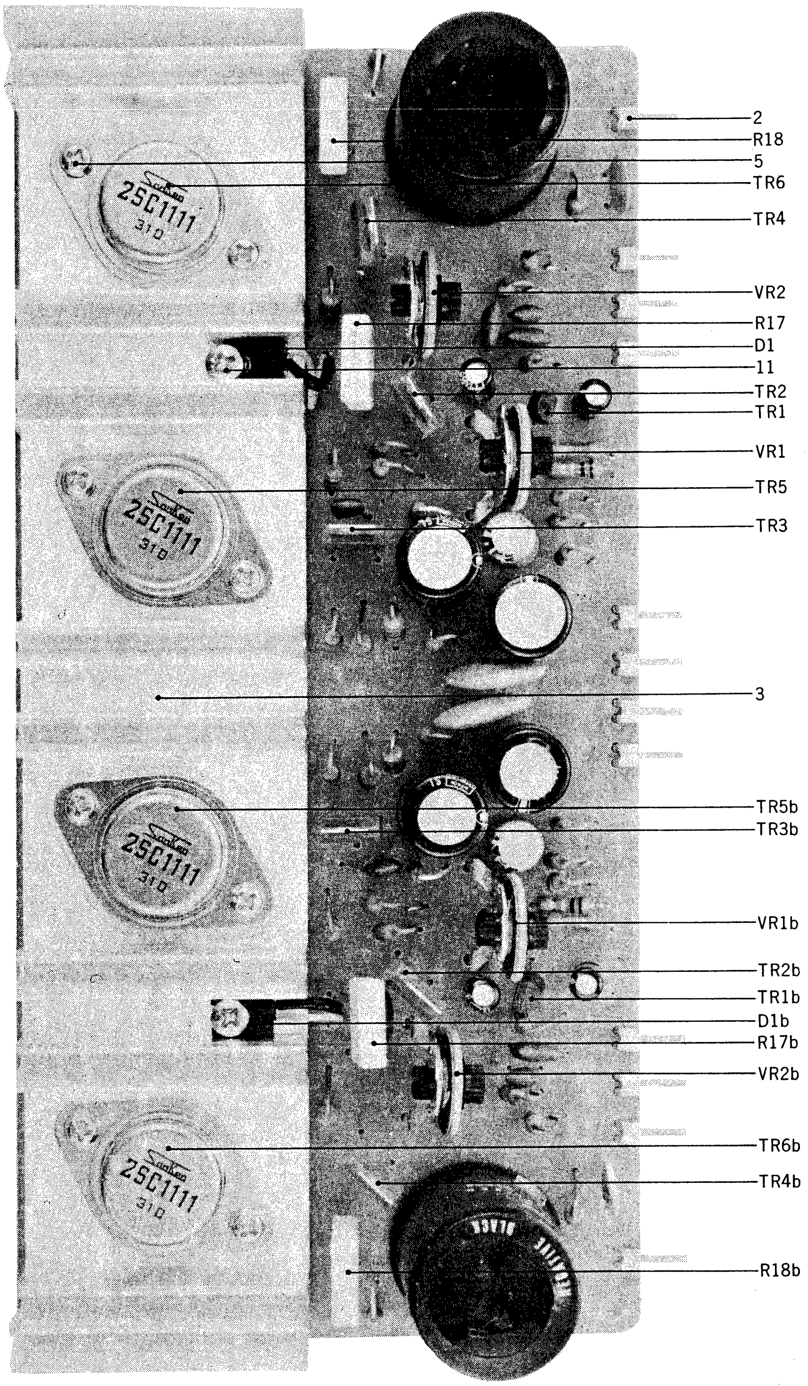
FIG. 10 PHOTO OF MAIN AMP. (94-5013) BLOCK


8
11
TR7
6
V1
7
TR8
3
5
TR8
V1
TR7
9
R17
TR5
TR2
TR3
VR1
TR4
VR2
TR1
14
TR6
R18
D1
D2
R18b
TR6b
TR1b
VR2b
TR4b
VR1b
TR3b
TR2b
R17b
TR5b
15

MAIN AMP. (94-5013) BLOCK

Symbol No.	Parts No.	Description	Q'ty
	MAIN AMP. BLOCK		
10-1x	BA554512	Main Amp. Block Comp.	1
10-2x	BA554501	Main Amp. Block Comp. (930)	1
10-TR7	ET551665	Transistor 2SC1116(O) (Y)	2
10-TR7	ET551687	Transistor 2SC1403(O) (Y) (930)	2
10-TR8	ET551676	Transistor 2SA747(O) (Y)	2
10-TR8	ET551698	Transistor 2SA745(O) (Y) (930)	2
10-V1	ED551733	Silicon Varistor STV-4H	2
10-3	BA554534	Main Amp. P.C. Board Comp. (94-5013)	1
10-4x	BA554523	Main Amp. P.C. Board Comp. (94-5013) (930)	1
10-5	EZ533531	Heat-sink	1
10-6	EJ551744	TR-11 Socket S2-110B-00 (C type)	4
10-7	ZS447840	Tapping Screw #2 3x8(BR)	2
10-8	AA532181	Heat-sink Mt. Angle A	1
10-9	AA532192	Heat-sink Mt. Angle B	1
10-10x	ZS379405	ISO Screw, binding head 3x6	4
10-11	ZS447772	Tapping Screw #2 3x6(BR)	4
	MAIN AMP. P.C. BOARD BLOCK		
10-12x	BA554534	Main Amp. P.C. Board Comp. (94-5013)	1
10-13x	BA554523	Main Amp. P.C. Board Comp. (94-5013) (930)	1
10-TR1, 2	ET561802	Transistor 2SA640(1)	4
10-TR3,4,5	ET551564	Transistor 2SC1124(1) (2)	6
10-TR6	ET551575	Transistor 2SA706-5(1) (2)	2
10-TR6	ET551586	Transistor 2SA706-4(1) (2) (930)	2
10-D1, 2	ED539976	Zener Diode WZ-130	2
10-VR1	EV551643	Semi-fixed Vol. SR19R 330B	2
10-VR2	EV361798	Semi-fixed Vol. SR19R 100B	2
10-14	EJ551654	Lapping Post 1x20	18
10-15	EJ539662	Lapping Post 1x17	11
		Capacitor, Vertical Type	
10-C1	EC313108	Elect. 1μF 50WV	2
10-C2	EC389024	VFM 82PF(K) 50WV	2
10-C3	EC350717	VFM 390PF(J) 50WV	2
10-C4	EC329782	Elect. 220μF 10WV	2
10-C5	EC321221	Elect. 100μF 50WV	2
10-C6	EC487394	VFM 47PF(K) 50WV	2
10-C7	EC379170	Mylar 0.1μF(J) 50WV	2
10-C8, 9	EC539842	VFM 200PF(K) 50WV	4
10-C10	EC368357	Mylar 0.056μF(J) 50WV	2
10-C11	EC539842	VFM 200PF(K) 50WV	2
		Resistor, Stopper Type	
10-R1	ER346601	Carbon RD1/4 47k(J)	2
10-R2	ER212477	Carbon RD1/4 3.3k(J)	2
10-R3	ER212883	Carbon RD1/4 4.7k(J)	2
10-R4	ER430020	Carbon RD1/4 13k(J)	2
10-R5	ER324720	Carbon RD1/4 5.6k(J)(Insu. type)	1
10-R6	ER212883	Carbon RD1/4 4.7k(J)	2
10-R7	ER211465	Carbon RD1/4 1k(J)	2
10-R8	ER419556	Carbon RD1/4 43k(J)	2
10-R9	ER324720	Carbon RD1/4 5.6k(J)(Insu.type)	1
10-R10	ER212872	Carbon RD1/4 4.3k(J)	2
10-R11	ER212477	Carbon RD1/4 3.3k(J)	2
10-R12	ER429794	Carbon RD1/4 68(J)	2
10-R13	ER304290	Carbon RD1/4 10(J)	2
10-R14, 15	ER551621	Carbon RD1/2 150(J) (Insu. type)	4
10-R16	ER304290	Carbon RD1/4 10(J)	2
10-R17, 18	ER442653	Cement 5W 0.5(K) (Wire-wound type)	4
10-R19	ER551632	Carbon RD1/2 10(J) (Insu. type)	2

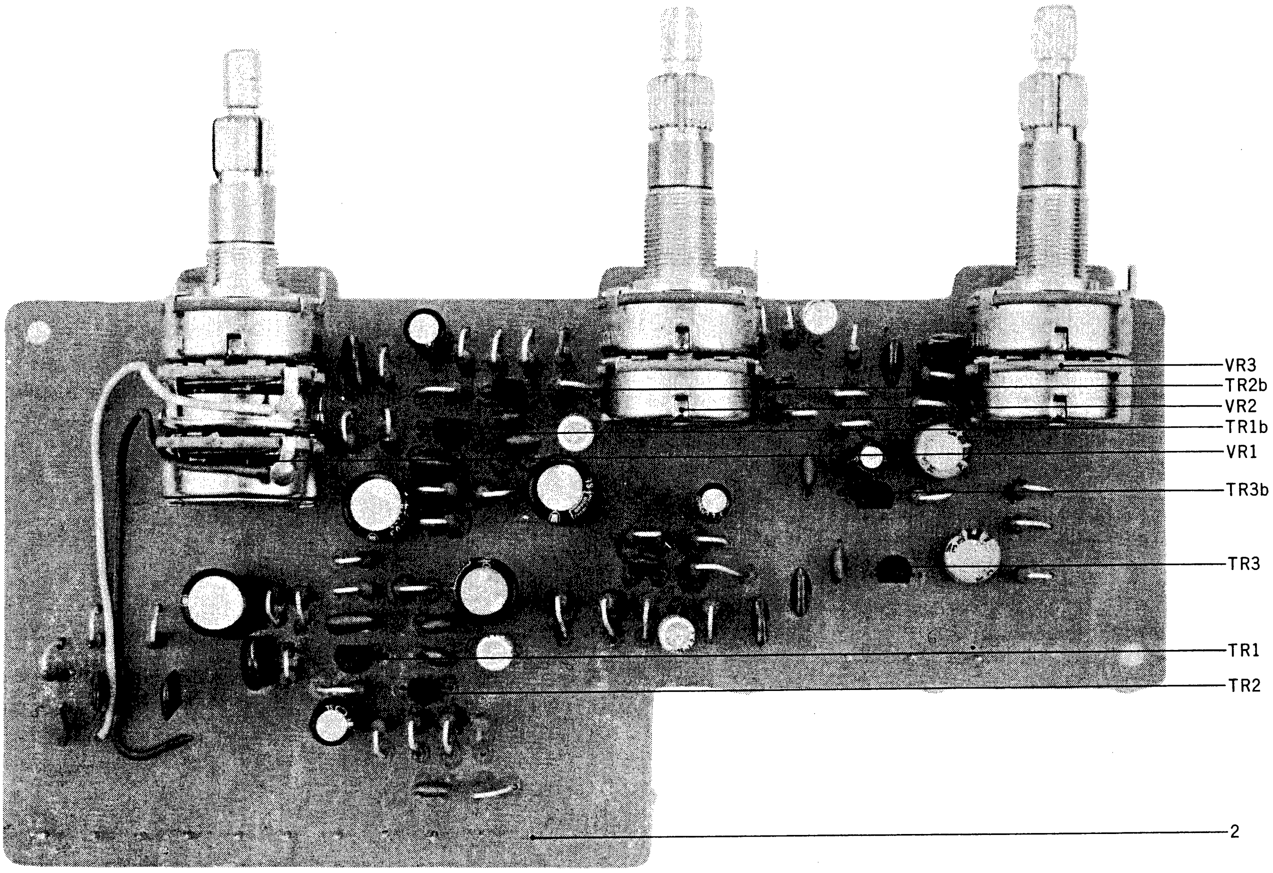
FIG. 11 PHOTO OF MAIN AMP. P.C. BOARD (92-5005) (AA-920)


2
R18
5
TR6
TR4
VR2
R17
D1
11
TR2
TR1
VR1
TR5
TR3
3
TR5b
TR3b
VR1b
TR2b
TR1b
D1b
R17b
VR2b
TR6b
TR4b
R18b
2SC1111
2SC1111
2SC1111
2SC1111

MAIN AMP. P.C. BOARD (92-5005) BLOCK (AA-920)

Symbol No.	Parts No.	Description	Q'ty
11-1x	BA556413	Main Amp. P.C. Board Comp. (92-5005)	1
11-TR1	ET539987	Transistor 2SC1312(F) (G)	2
11-TR2, 3	ET551564	Transistor 2SC1124(1) (2)	4
11-TR4	ET556020	Transistor 2SA706-3(1) (2)	2
11-TR5, 6	ET556648	Transistor 2SC1111(O) (Y)	4
11-D1	ED556514	Varistor STV-3H	2
11-VR1	EV383398	Semi -fixed Vol. V18K3-2 30 kB(4US)	2
11-VR2	EV409858	Semi-fixed Vol. V18K3-2 100B(4US)	2
11-2	EJ550012	Lapping Terminal T5280	12
11-3	EZ542755	Heat-sink B	1
11-4x	AA541552	Transistor Mt. Plate	4
11-5	ZS463454	ISO Screw, binding bead 3x15	8
11-6x	ZW348107	ISO Nut M3	8
11-7x	ZW273778	Earth Lug M3	8
11-8x	ZW259593	Washer (BSP)D3.4x7.8x0.5t	8
11-9x	AA541563	Heat-sink Plate Mt. Parts	2
11-10x	ZS379405	ISO Screw, binding head 3x6	4
11-11	ZS321298	ISO Screw, binding head 3x8	2
11-12x	ZW426622	Washer (SPC)D3.4x7.8x0.5t	2
		Capacitor, Vertical Type	
11-C1	EC539943	Elect. 3.3μF 50WV	2
11-C2	EC290531	VFM 100PF(K) 50WV	2
11-C3	EC321221	Elect. 100μF 50WV	2
11-C4	EC539943	Elect. 3.3μF 50WV	2
11-C5	EC321221	Elect. 100μF 50WV	2
11-C6	EC290531	VFM 100PF(K) 50WV	2
11-C7	EC220364	Elect. 100μF 6.3WV	2
11-C8	EC556176	Elect. 2200μF 35WV	2
11-C9	EC487394	VFM 47PF(K) 50WV	2
11-C10	EC384085	Ceramic DB205YZ 0.022μF(Z) 50WV	2
11-C11	EC551160	Ceramic NB821YZ 0.01μF(Z) 1.4 kWV	2
11-C12	EC357827	VFM 50PF(K) 50WV	2
		Resistor, Stopper Type	
11-R1	ER213715	Carbon RD1/4 100k(J) (Insu. type)	2
11-R2	ER329264	Carbon RD1/4 2.2k(J) (Insu. type)	2
11-R3	ER430007	Carbon RD1/4 1.5M(J)	2
11-R4	ER211757	Carbon RD1/4 100k(J)	2
11-R5	ER304402	Carbon RD1/4 470(J)	2
11-R6	ER346544	Carbon RD1/4 3k(J)	2
11-R7	ER433877	Carbon RD1/4 120(J)	2
11-R8	ER466582	Carbon RD1/2 820(J) (Insu. type)	2
11-R9	ER212883	Carbon RD1/4 4.7k(J)	2
11-R10	ER357535	Carbon RD1/4 39k(J)	2
11-R11	ER212477	Carbon RD1/4 3.3k(J)	2
11-R12	ER212016	Carbon RD1/4 150(J)	2
11-R13	ER556042	Carbon RD1/2 22(J) (Insu. type)	2
11-R14	ER212016	Carbon RD1/4 150(J)	2
11-R15	ER556042	Carbon RD1/2 22(J) (Insu. type)	2
11-R16	ER212016	Carbon RD1/4 150(J)	2
11-R17, 18	ER556064	Metal Plate MPC71F2 5W 0.47(K)	4
11-R19	ER306887	Carbon RD1/4 15k(J)	2
11-R20	ER352045	Carbon RD1/4 3.9k(J)	2
11-R21	ER452542	Carbon RD1/2 10(J) (Insu. type)	2

FIG. 12 PHOTO OF TONE CONTROL P.C. BOARD (94-5025)



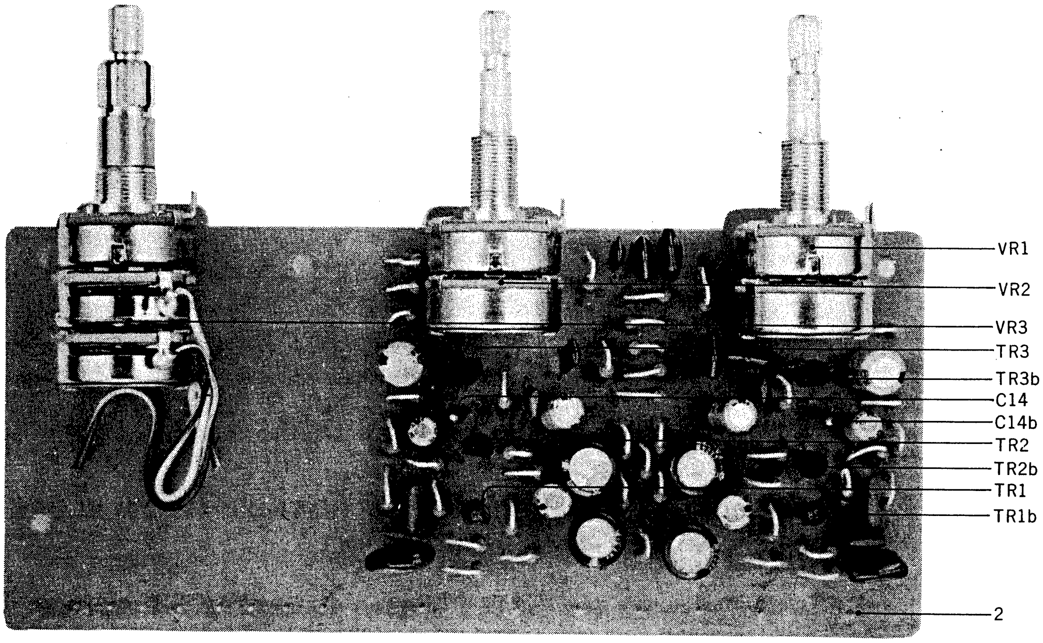
TONE CONTROL P.C. BOARD (94-5025)

BLOCK

Symbol No.	Parts No.	Description	Q'ty
12-1x	BA554332	Tone Control P.C. Board Comp. (94-5025)	1
12-TR1	ET539987	Transistor 2SC1312(F) (G)	2
12-TR2	ET460912	Transistor 2SA640(L) (M)	2
12-TR3	ET539987	Transistor 2SC1312(F) (G)	2
12-VR1	EV551226	Co-axial 2-throw Vol., w/pre-set V24L5DPHN 2BL 500kx2	1
12-VR2, 3	EV551237	Double Vol. V24L5DPHN 1 kB 100kx2 (frictional)	2
12-2	EJ539662	Lapping Post 1x17	14
		Capacitor, Vertical Type	
12-C1	EC389024	VFM 82PF(K) 50WV	2
12-C2	EC250975	Mylar 0.015μF(J) 50WV	2
12-C3	EC368357	Mylar 0.056μF(J) 50WV	2
12-C4	EC290531	VFM 100PF(K) 50WV	2
12-C5	EC329771	Elect. 47μF 6.3WV	2
12-C6	EC474671	VFM 10PF(K) 50WV	2
12-C7	EC357827	VFM 50PF(K) 50WV	2
12-C8	EC493323	Elect. 1μF 25WV NL	2
12-C9	EC346735	Elect. 47μF 50WV	2
12-C10, 11	EC379157	Mylar 0.033μF(J) 50WV	4
12-C12	EC424708	Mylar 0.0018μF(J) 50WV	2
12-C13	EC331828	Elect. 3.3μF 25WV	2
12-C14	EC456322	VFM 22PF(K) 50WV	2
12-C15	EC336104	Elect. 100μF 6.3WV	2
12-C16	EC478945	Elect. 2.2μF 25WV NL	2
12-C17	EC346735	Elect. 47μF 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
12-R1	ER350100	Carbon RD1/4 68k(J)	2
12-R2	ER357535	Carbon RD1/4 39k(J)	2
12-R3	ER362024	Carbon RD1/4 820k(J)	2
12-R4	ER336442	Carbon RD1/4 10k(J)	2
12-R5	ER349907	Carbon RD1/4 33k(J)	2
12-R6	ER306360	Carbon RD1/4 6.8k(J)	2
12-R7	ER336442	Carbon RD1/4 10k(J)	2
12-R8	ER212477	Carbon RD1/4 3.3k(J)	2
12-R9	ER211858	Carbon RD1/4 12k(J)	2
12-R10	ER306843	Carbon RD1/4 1.2k(J)	2
12-R11	ER336442	Carbon RD1/4 10k(J)	2
12-R12	ER306843	Carbon RD1/4 1.2k(J)	2
12-R13, 14	ER213030	Carbon RD1/4 5.6k(J)	4
12-R15	ER429996	Carbon RD1/4 470k(J)	2
12-R16, 17	ER306887	Carbon RD1/4 15k(J)	4
12-R18	ER336442	Carbon RD1/4 10k(J)	2
12-R19	ER429996	Carbon RD1/4 470k(J)	2
12-R20	ER211757	Carbon RD1/4 100k(J)	2
12-R21	ER349942	Carbon RD1/4 8.2k(J)	2
12-R22	ER357456	Carbon RD1/4 2.2k(J)	2
12-R23	ER211667	Carbon RD1/4 100(J)	2

FIG. 13 PHOTO OF TONE CONTROL P.C. BOARD (92-5010) (AA-920)

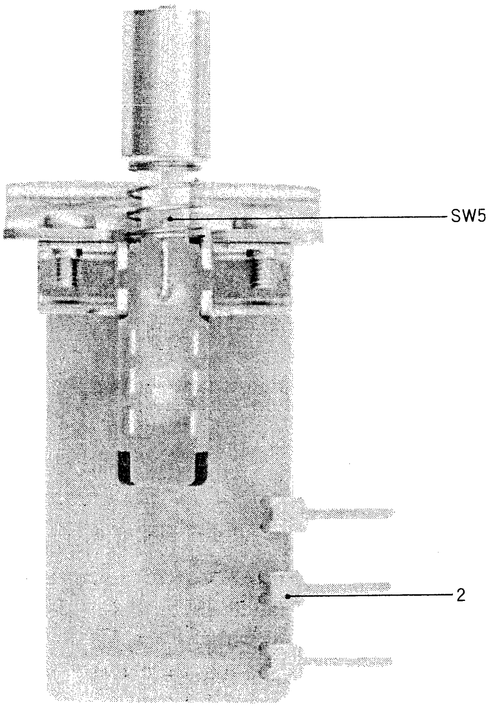


TONE CONTROL P.C. BOARD (92-5010) BLOCK (AA-920)

Symbol No.	Parts No.	Description	Q'ty
13-1x	BA556345	Tone Control P.C. Board Comp. (92-5010) (920)	1
13-TR1	ET491051	FET Transistor 2SK30A (GR)	2
13-TR2	ET555952	Transistor 2SA725(G)	2
13-TR3	ET550754	Transistor 2SC1312(G)	2
13-VR1, 2	EV555941	Co-axial 2-throw Vol., w/click V24L5GPHN 1 kB 100kx2	2
13-VR3	EV551226	Co-axial 2-throw Vol., w/pre-set V24L5DPHN 2BL 500kx2	1
13-2	EJ539662	Lapping Post 1x17	15
		Capacitor, Vertical Type	
13-C1	EC346735	Elect. 47μF 50WV	2
13-C2	EC251291	Mylar 0.1μF(K) 50WV	2
13-C3	EC290531	VFM 100PF(K) 50WV	2
13-C4	EC290507	VFM 150PF(K) 50WV	2
13-C5	EC329771	Elect. 47μF 6.3WV	2
13-C6	EC450527	Elect. 4.7μF 25WV	2
13-C7, 8	EC379214	Mylar 0.047μF(J) 50WV	4
13-C9	EC250716	Mylar 0.0022μF(K) 50WV	2
13-C10	EC220994	Elect. 10μF 25WV	2
13-C11	EC456322	VFM 22PF(K) 50WV	2
13-C12	EC336104	Elect. 100μF 6.3WV	2
13-C13	EC346735	Elect. 47μF 50WV	2
13-C14	EC497946	Tantalum 0.68μF(M) 35WV (DTS type)	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
13-R1	ER419040	Carbon RD1/4 1M(J)	2
13-R2	ER380755	Carbon RD1/4 6.2k(J)	2
13-R3	ER306360	Carbon RD1/4 6.8k(J)	2
13-R4	ER349907	Carbon RD1/4 33k(J)	2
13-R5	ER212883	Carbon RD1/4 4.7k(J)	2
13-R6	ER371946	Carbon RD1/4 2k(J)	2
13-R7	ER336442	Carbon RD1/4 10k(J)	2
13-R8	ER306843	Carbon RD1/4 1.2k(J)	2
13-R9, 10	ER336442	Carbon RD1/4 10k(J)	4
13-R11	ER211465	Carbon RD1/4 1k(J)	2
13-R12	ER336442	Carbon RD1/4 10k(J)	2
13-R13, 14	ER212883	Carbon RD1/4 4.7k(J)	4
13-R15	ER336442	Carbon RD1/4 10k(J)	2
13-R16	ER430086	Carbon RD1/4 560k(J)	2
13-R17	ER450011	Carbon RD1/4 120k(J)	2
13-R18	ER349942	Carbon RD1/4 8.2k(J)	2
13-R19	ER357456	Carbon RD1/4 2.2k(J)	2
13-R20	ER211667	Carbon RD1/4 100(J)	2
13-R21	ER212681	Carbon RD1/4 330(J)	2

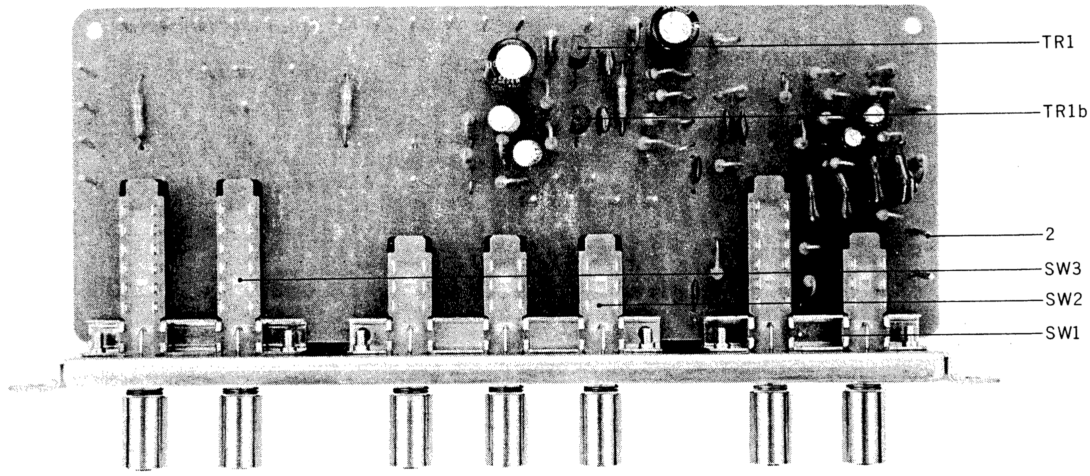
FIG. 14 PHOTO OF DIMMER P.C. BOARD (94-5023)



DIMMER P.C. BOARD (94-5023) BLOCK

Symbol No.	Parts No.	Description	Q'ty
14-1x	BA554297	Dimmer P.C. Board Comp. (94-5023)	1
14-SW5	ES551171	Push Switch 1FS-2U-12	1
14-2	EJ550012	Lapping Post T5280	3

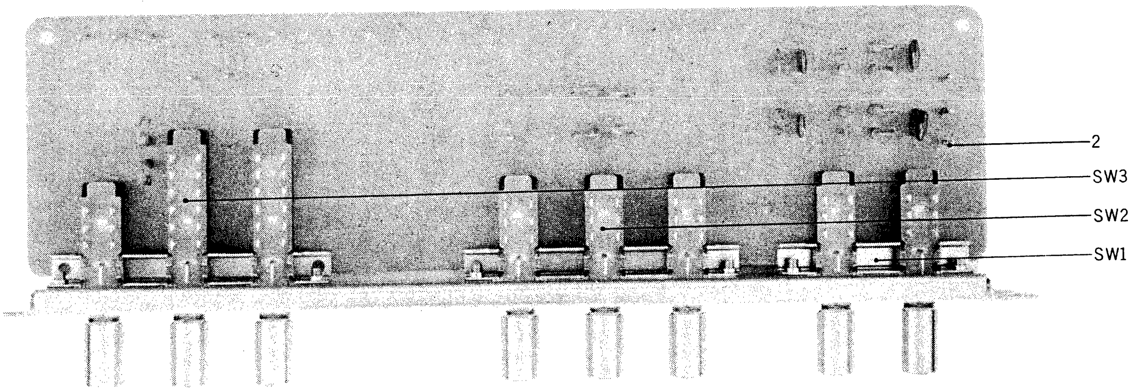
FIG. 15 PHOTO OF SWITCH P.C. BOARD (94-5020)



SWITCH P.C. BOARD (94-5020) BLOCK

Symbol No.	Parts No.	Description	Q'ty
15-1x	BA554310	Switch P.C. Board Comp. (94-5020)	1
15-TR1	ET539987	Transistor 2SC1312(F) (G)	2
15-SW1	ES551261	Push Switch 2FS-6U-147	1
15-SW2	ES539651	Push Switch 3FS-6U-148	1
15-SW3	ES551272	Push Switch 2FS-8U-70	1
15-2	EJ539662	Lapping Post 1x17	32
		Capacitor, Vertical Type	
15-C1, 2	EC438041	Mylar 0.082μF(J) 50WV	4
15-C3	EC493323	Elect. 1μF 25WV NL	2
15-C4	EC413684	Mylar 0.0082μF(J) 50WV	2
15-C5	EC379787	Mylar 0.0039μF(J) 50WV	2
15-C6	EC444374	VFM 20PF(K) 50WV	2
15-C7	EC478945	Elect. 2.2μF 25WV NL	2
15-C8	EC220151	Elect. 100μF 25WV	2
		Resistor, Stopper Type	
15-R1	ER361528	Carbon RD1/4 56k(J)	2
15-R2	ER419040	Carbon RD1/4 1M(J)	2
15-R3	ER346994	Carbon RD1/4 18k(J)	2
15-R4	ER212174	Carbon RD1/4 180k(J)	2
15-R5	ER380711	Carbon RD1/4 220k(J)	2
15-R6	ER212883	Carbon RD1/4 4.7k(J)	2
15-R7	ER450011	Carbon RD1/4 120k(J)	2
15-R8	ER362485	Carbon RD1/4 330k(J)	2
15-R9	ER212883	Carbon RD1/4 4.7k(J)	2
15-R10	ER357456	Carbon RD1/4 2.2k(J)	1
15-R10	ER329264	Carbon RD1/4 2.2k(J) (Insu. type)	1
15-R11	ER430007	Carbon RD1/4 1.5M(J)	2
15-R12	ER212883	Carbon RD1/4 4.7k(J)	2
15-R13	ER349828	Carbon RD1/4 20k(J)	2
15-R14	ER371946	Carbon RD1/4 2k(J)	2
15-R15	ER357456	Carbon RD1/4 2.2k(J)	2
15-R16	ER329264	Carbon RD1/4 2.2k(J) (Insu. type)	2

FIG. 16 PHOTO OF SWITCH P.C. BOARD (93-5005) (AA-930)

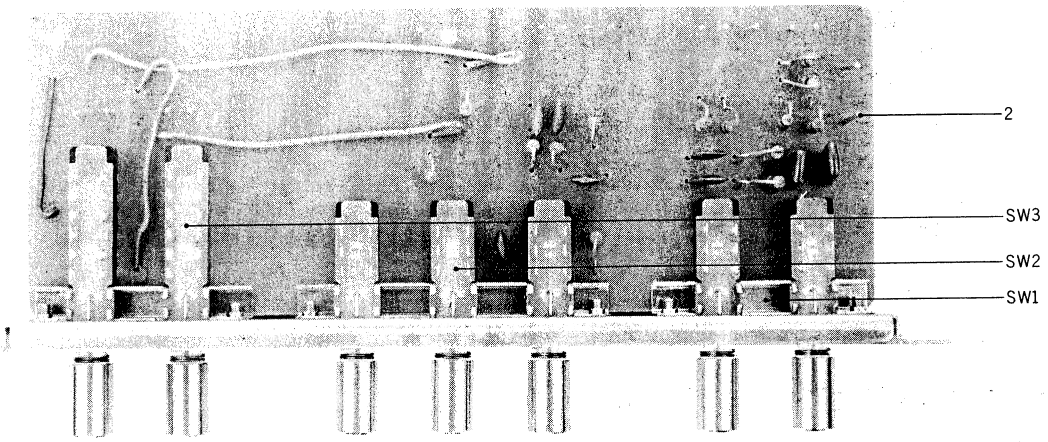


SWITCH P.C. BOARD (93-5005)
BLOCK (AA-930)

Symbol No.	Parts No.	Description	Q'ty
16-1x	BA554308	Switch P.C. Board Comp. (93-5005) (930)	1
16-SW1	ES551283	Push Switch 2FS-4U-24	1
16-SW2	ES539651	Push Switch 3FS-6U-148	1
16-SW3	ES551294	Push Switch 3FS-10U-165	1
16-2	EJ539662	Lapping Post 1x17	29
		Capacitor, Vertical Type	
16-C1	EC379157	Mylar 0.033μF(J) 50WV	2
16-C2	EC311793	Mylar 0.012μF(J) 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
16-R1	ER430086	Carbon RD1/4 560k(J)	2
16-R2	ER450011	Carbon RD1/4 120k(J)	2
16-R3	ER212477	Carbon RD1/4 3.3k(J)	2
16-R4	ER429996	Carbon RD1/4 470k(J)	2
16-R5	ER211757	Carbon RD1/4 100k(J)	2
16-R6	ER211858	Carbon RD1/4 12k(J)	2
16-R7	ER212477	Carbon RD1/4 3.3k(J)	2

FIG. 17 PHOTO OF SWITCH P.C. BOARD (92-5011) (AA-920)

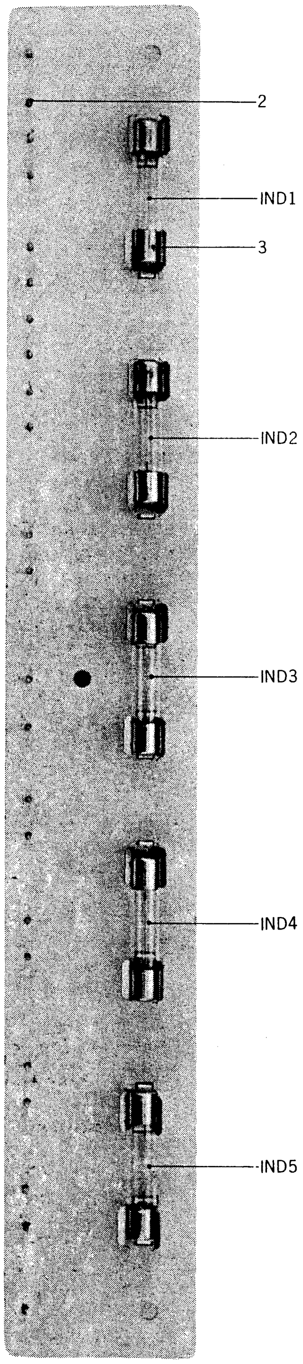


SWITCH P.C. BOARD (92-5011)
BLOCK (AA-920)

Symbol No.	Parts No.	Description	Q'ty
17-1x	BA556334	Switch P.C. Board Comp. (92-5011) (920)	1
17-SW1	ES551283	Push Switch 2FS-4U-24	1
17-SW2	ES539651	Push Switch 3FS-6U-148	1
17-SW3	ES551272	Push Switch 2FS-8U-70	1
17-2	EJ539662	Lapping Post 1x17	27
		Capacitor, Vertical Type	
17-C1, 2	EC308711	Mylar 0.047μF(K) 50WV	2
17-C3, 4	EC379833	Mylar 0.0082μF(K) 50WV	2
17-C5, 6	EC389024	VFM 82PF(K) 50WV	2
17-C7, 8	EC250997	Mylar 0.015μF(K) 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
17-R1, 2	ER211757	Carbon RD1/4 100k(J)	2
17-R3, 4	ER357491	Carbon RD1/4 82k(J)	2
17-R5, 6	ER213030	Carbon RD1/4 5.6k(J)	2
17-R7, 8	ER429996	Carbon RD1/4 470k(J)	2
17-R9, 10	ER350100	Carbon RD1/4 68k(J)	2
17-R11, 12	ER342933	Carbon RD1/4 27k(J)	2
17-R13, 14	ER212477	Carbon RD1/4 3.3k(J)	2

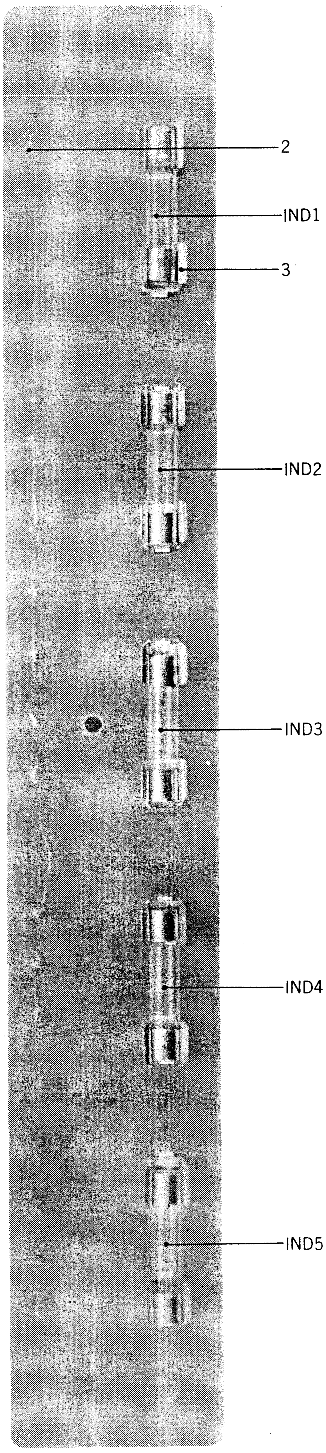
FIG. 18 PHOTO OF DIAL ILLUMINATION P.C. BOARD (AA-5029)



DIAL ILLUMINATION P.C. BOARD (AA-5029) BLOCK

Symbol No.	Parts No.	Description	Q'ty
18-1x	BA554400	Dial Illumination P.C. Board Comp. (AA-5029)	1
18-IND1to5	EL539684	Lamp, Fuse type 8V 0.3A	5
18-2	EJ539662	Lapping Post 1x17	23
18-3	EJ514822	Fuse Holder, P.C. Board S-N5051	10

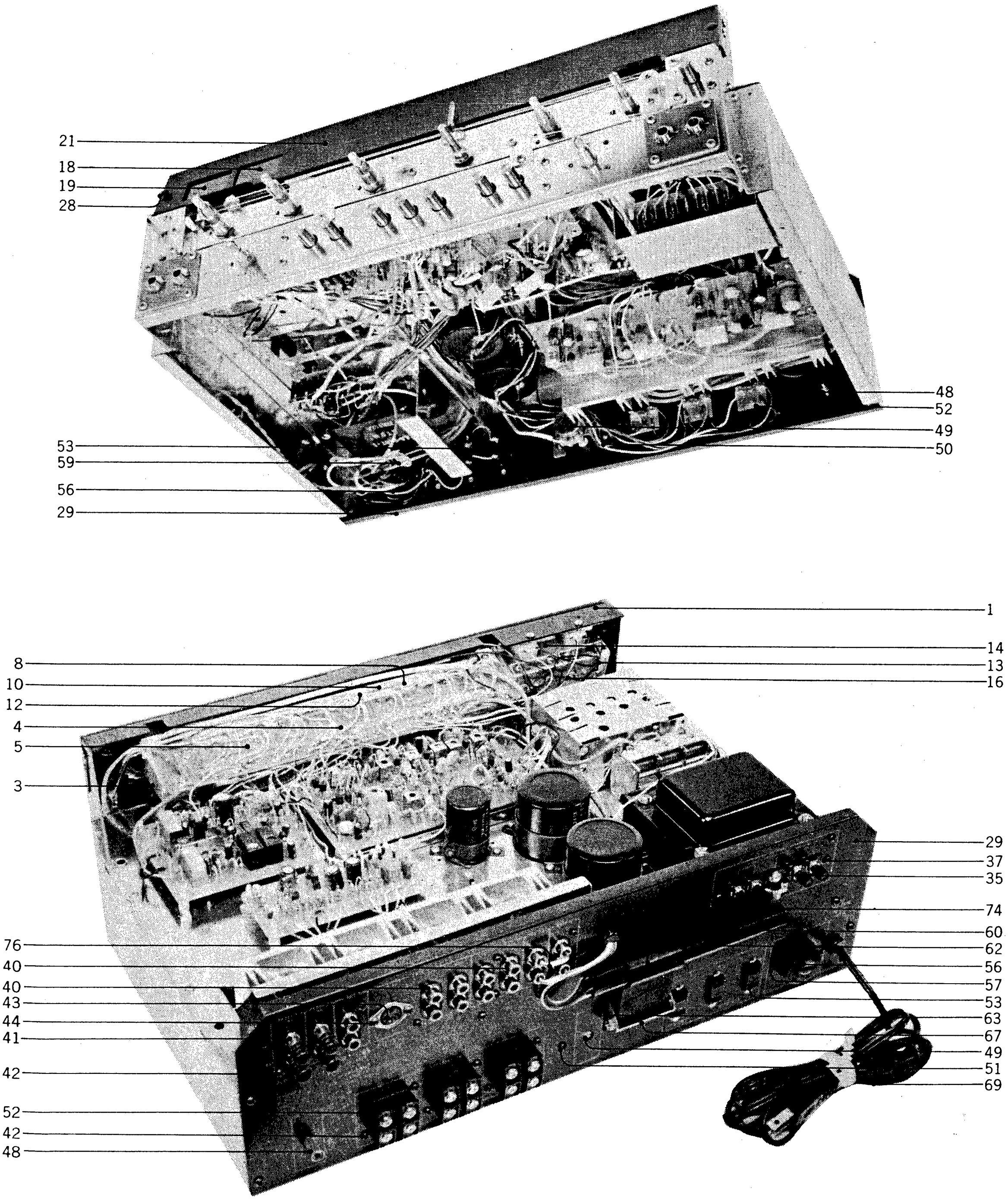
FIG. 19 PHOTO OF DIAL ILLUMINATION P.C. BOARD (91-5035) (AA-920)



DIAL ILLUMINATION P.C. BOARD (91-5035) BLOCK (AA-920)

Symbol No.	Parts No.	Description	Q'ty
19-1x	BA550394	Dial Illumination P.C. Board Comp. (91-5035) (920)	1
19-IND1to5	EL539684	Lamp, Fuse type 8V 0.3A	5
19-2	EJ539662	Lapping Post 1x17	15
19-3	EJ514822	Fuse Holder P.C. Board S-N5051	10

FIG. 21 PHOTO OF SCALE PLATE/REAR PANEL BLOCK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SCALE PLATE/REAR PANEL BLOCK

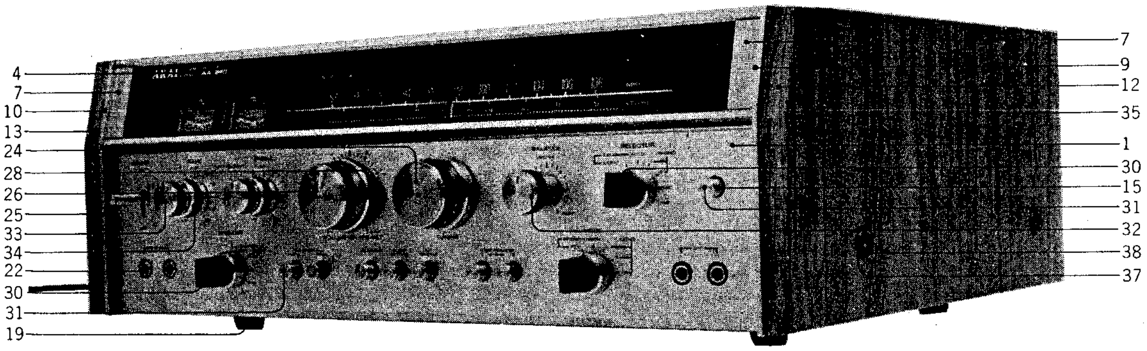
SCALE PLATE MT. CHASSIS BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
21-1	AA533340	Scale Plate Mt. Chassis	94-5026	1
21-2x	AA530774	Scale Plate Mt. Chassis (920)	91-5020	1
21-3	AA530785	Lamp Case	91-5021	1
21-4	ZS447772	Tapping Screw #2 3x6(BR)		18
21-5	BA554400	Dial Illumination P.C. Board Comp. (94-5029)		1
21-6x	BA550394	Dial Illumination P.C. Board Comp. (91-5035) (920)		1
21-7x	SM531336	Name Plate, Pointer	91-5065	1
21-8	AA533351	Lamp Holder	94-5027	1
21-9x	AA541653	Lamp Holder (920)	92-5012	1
21-10	AA533362	Lamp Holder Case	94-5028	1
21-11x	AA541642	Lamp Holder Case (920)	92-5013	1
21-12	EL550045	Cord Lamp 3 8V 50MA	28-2-30	10
21-13	AA530820	Meter Case	91-5025	2
21-14	AA533384	Meter Mt. Angle	94-5030	1
21-15x	AA530818	Meter Mt. Angle (920)	91-5024	1
21-16	EJ367986	Fuse Holder 1P AC125V 5A	40-1-8	2
21-17x	EL539684	Lamp, Fuse type 8V 0.3A	28-2-27	2
21-18	EM551248	Signal Meter KL-218L-25	46-1-71	1
21-19	EM551250	Tuning Meter KL-218L-27	46-1-70	1
21-20x	EM539695	Tuning Meter KL-218L-26 (920)	46-1-68	1
21-21	AA533474	Scale Plate B	94-5039	1
21-22x	AA533463	Scale Plate A (J)	94-5039	1
21-23x	AA532023	Scale Plate B (930)	93-5016	1
21-24x	AA532012	Scale Plate A (930-J)	93-5016	1
21-25x	AA532034	Scale Plate C (930-A)	93-5016	1
21-26x	AA541675	Dial Plate A (920)	92-5014	1
21-27x	AA541686	Dial Plate B (920-J)	92-5014	1
21-28	EJ556143	Canoe Clip (large)	2-7-35	2

REAR PANEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
21-29	SP533395	Rear Panel A	94-5032	1
21-30x	SP533417	Rear Panel C (CSA)	94-5032	1
21-31x	SP533406	Rear Panel B (930)	94-5032	1
21-32x	SP582963	Rear Panel D (930-CSA, CEE)	94-5032	1
21-33x	SP541574	Rear Panel A (920)	92-5015	1
21-34x	SP541585	Rear Panel B (920-CSA,CEE)	92-5015	1
21-35	AA510625	5P Antenna Terminal Plate	32-1-29	1
21-36x	BT444137	Balum Trans. 75Ω-300Ω	23-1-129	1
21-37	ZS553904	ISO Screw, binding head 3x8(black)		2
21-38x	ZW348107	ISO Nut M3		3
21-39x	ZW273778	Earth Lug M3		2
21-40	EJ551338	6P Lapping Pin Jack A T-5347(A)	31-1-104	2
21-41	EJ551340	6P Lapping Pin Jack B T-5347(B)	31-1-102	1
21-42	ZS570385	ISO Taptight Screw 3x8(pan)		12
21-43	EJ299305	Jack, 5P Din	31-1-1	1
21-44	ZS447761	Tapping Screw #2 3x6(BR) (black)		2
21-45x	ER452777	Carbon/R. RD1/4 160k(J) (Insu. type)	35-9-5	2
21-46x	ER364994	Carbon/R. RD1/4 39k(J) (Insu. type)	35-9-5	2
21-47x	ER213873	Carbon/R. RD1/4 150k(J) (Insu. type)	35-9-5	6
21-48	EV486257	Metal Terminal T-10	32-1-27	1
21-49	EV461608	Volume V24L5N 25S 1 kB	36-2-24	1
21-50	EZ458673	ST Supporter	AA-745	1
21-51	ZS552622	ISO Screw, pan head 3x6		2
21-52	EJ551316	Consent, Speaker P0409	31-1-98	3
21-53	EJ378944	Socket, AC U/L S-I 9122	31-1-47	3
21-54x	AA530908	Socket Nut	91-5028	3
21-55x	ZS393794	ISO Screw, round head 3x8		6
~~21-56~~	~~EJ233370~~	~~Socket (Volt. Selector)~~ S-18010	40-2-3	1
21-57	ZS552611	ISO Screw, pan head 3x8 (black)		2
21-58x	ER428567	Solid/R. RC1/2 2.2M(K)	35-5-4	1
21-59	EC565896	Ceramic/C. DP6600YM 0.01μF(P) 1.4 kWV	24-5-58	1
21-60	AA551362	Bar Antenna (in case)	55-1-13	1
21-61x	AA556121	Bar Antenna (920)	55-1-15	1
21-62	WM378268	Antenna Support	AA-5552	1
21-63	ZS552600	ISO Screw, pan head 4x50		1
21-64x	ZW551373	Washer (Nylon)D4.2x8x0.5t		2
21-65x	ZW273914	Spring Washer M4		2
21-66x	ZW556132	ISO Nut M4		1
21-67	AA530910	Antenna Channel	91-5029	1
21-68x	ZS447761	Tapping Screw #2 3x6(BR) (black)		2
21-69	EW540112	AC Cord (CUL) 2.5M	26-3-19	1
21-70x	EW524845	AC Cord (J) 2.5M (J)	26-3-31	1
21-71x	EW486797	Power Supply Cord (VDE) (WG)	26-3-26	1
21-72x	EW315448	Australia Cord (3 core)	26-3-11	1
21-73x	EW516600	Power Supply Cord VM-0065 (930-CEE)	26-3-28	1
21-74	EZ382263	Strain Relief SR-4K-4	2-7-12	2
21-75x	EZ246936	Strain Relief SR-6W-1 (3 core)	2-7-8	1
21-76	EJ554578	Short Plug	42-1-66	2

FIG. 23 PHOTO OF FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
	FRONT PANEL BLOCK			
23-1	SP533441	Front Panel (940)	94-5036	1
23-2x	SP531944	Front Panel (930)	93-5008	1
23-3x	SP541765	Front Panel (920)	92-5018	1
23-4	AA531011	Front Plate 4 (940)	91-5044	1
23-5x	AA531022	Front Plate 5 (930)	91-5044	1
23-6x	AA531000	Front Plate 3 (920)	91-5044	1
23-7	AA531134	Fitting 1	91-5045	2
23-8x	AA530976	Cushion, Front Plate	91-5043	2
23-9	AA531156	Side Fitting A (right)	91-5046	1
23-10	AA531167	Side Fitting B (left)	91-5046	1
23-11x	ZS406416	Tapping Screw #2 3x8 (countersunk)		2
23-12	AA541517	Side Molding A (right)	91-5082	1
23-13	AA541528	Side Molding B (left)	91-5082	1
23-14x	ZS447805	Tapping Screw #2 3x12(BR)		6
23-15	AA545905	Push Button Bush	98-5061	8
	ASSEMBLY BLOCK			
23-16x	SP533430	Bottom Plate	94-5035	1
23-17x	SP531202	Bottom Plate (920)	91-5049	1
23-18x	ZS447772	Tapping Screw #2 3x6(BR)		7
23-19	SA428714	LM Rubber Foot, w/screw	LM-404	4
23-20x	ZS463375	Tapping Screw #2 4x15(truss)		4
23-21x	ZS200676	Tapping Screw #2 3x6 (countersunk)		6
23-22	EZ436217	Collar, Jack	MC-5006	4
23-23x	ZW526577	Collar B, Jack (920)	MC-5006	2
23-24	SK531213	Tuning Knob	91-5050	1
23-25	SK531314	Power Knob	91-5060	1
23-26	SK531358	Volume Knob	91-5073	1
23-27x	ZS446422	ISO Set Screw, hexagon socket 4x8(cup)		1
23-28	SK531347	Volume Knob Ring	91-5071	1
23-29x	ZW493312	Washer (Nylon)D6.2x10x1t		1
23-30	SK531292	Selector Knob	91-5058	3
23-31	SK531224	Push Button Knob	91-5051	8
23-32	SK531281	Single Knob	91-5057	1
23-33	SK531246	Double Knob (upper)	91-5053	2
23-34	SK531268	Double Knob (lower)	91-5055	2
23-35	BC533452	Cabinet	94-5038	1
23-36x	BC531325	Cabinet (920)	91-5061	1
23-37	ZW548010	Spot Facing Washer	MU-6028	1
23-38	ZS513775	ISO Screw, binding head 4x15		4
23-39x	EF378595	Fuse ST-2 4A	39-1-26	1
23-40x	EF394773	Fuse 2A 250V	39-1-39	1
23-41x	EF323616	Fuse ST-2 3A	39-1-26	1
23-42x	EF277424	Fuse ST-4 0.8A (CSA)	39-1-28	2
23-43x	EF444183	Fuse 1.5A 250V (930,920)	39-1-44	1
23-44x	EF564491	Fuse 4AT(T type)(930-CEE)		1
23-45x	EF375647	Fuse 500MAT(T type)(CEE)		3
23-46x	EF575245	Fuse 5AT (930-CEE)		2
23-47x	EF277413	Fuse ST-2 2A (920)	39-1-26	3
23-48x	EF564445	Fuse 3.5A 125V(920-CSA)	39-1-44	2
23-49x	EF480892	Fuse 0.8A 125V (920-CSA)	39-1-44	2
23-50x	EF564456	Fuse 3.5AT(T type) (920-CEE)		2
23-51x	AA560092	FM Antenna AFM-1B (5003-03)	55-1-18	1
23-52x	AA560081	FM Antenna AFM-1A (5003-04) (J)	55-1-18	1

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
AA510625	21-35	AF555974	22-32x	EC220994	13-C10	EC379214	13-C7, 8	ED556110	7-D3 to 6
AA530583	22-2x	AF556187	22-33x	EC250604	7-C10,11	EC379765	9-C10	ED556514	11-D1
AA530594	22-6x	AZ530695	22-11x	EC250604	7-C13	EC379787	15-C5	EF277413	23-47x
AA530605	22-4x	AZ530728	3-4	EC250716	13-C9	EC379833	17-C3, 4	EF277424	23-42x
AA530627	22-70	AZ530728	4-5	EC250841	1-C2	EC380621	1-C20,21	EF323616	23-41x
AA530640	22-38x	AZ530730	20-33x	EC250841	2-C39	EC384085	11-C10	EF375647	23-45x
AA530717	20-4x	BA550394	19-1x	EC250841	2-C56,57	EC389024	10-C2	EF378595	23-39x
AA530741	20-40	BA550394	21-6x	EC250841	9-C9	EC389024	12-C1	EF394773	23-40x
AA530774	21-2x	BA554264	4-2x	EC250975	1-C12,13	EC389024	17-C5, 6	EF444183	23-43x
AA530785	21-3	BA554264	20-7x	EC250975	12-C2	EC389474	1-C6	EF480892	23-49x
AA530818	21-15x	BA554275	4-1x	EC250997	17-C7, 8	EC391004	8-C2	EF564445	23-48x
AA530820	21-13	BA554275	20-6	EC251291	13-C2	EC413684	15-C4	EF564456	23-50x
AA530908	21-54x	BA554286	3-1x	EC290507	13-C4	EC424708	12-C12	EF564491	23-44x
AA530910	21-67	BA554286	20-9	EC290531	2-C27	EC427948	2-C36	EF575245	23-46x
AA530954	22-77	BA554297	14-1x	EC290531	6-C10	EC438041	15-C1, 2	EI443744	1-IC1
AA530976	23-8x	BA554297	20-19	EC290531	9-C4,5	EC443632	2-C40	EI469967	2-IC1 to 4
AA531000	23-6x	BA554308	16-1x	EC290531	9-C11	EC443654	2-C8	EI539818	2-FL1, 2,3
AA531011	23-4	BA554308	20-16x	EC290531	11-C2	EC444374	15-C6	EJ233370	21-56
AA531022	23-5x	BA554310	15-1x	EC290531	11-C6	EC450527	2-C23	EJ255093	22-66x
AA531134	23-7	BA554310	20-15	EC290531	12-C4	EC450527	2-C33	EJ299305	21-43
AA531156	23-9	BA554332	12-1x	EC290531	13-C3	EC450527	2-C46	EJ367986	21-16
AA531167	23-10	BA554332	20-49	EC308711	17-C1, 2	EC450527	2-C58	EJ378944	21-53
AA531360	22-78	BA554400	18-1x	EC311793	8-C1	EC450527	5-C6	EJ391083	4-J20, 21
AA531371	22-79	BA554400	21-5	EC311793	16-C2	EC450527	8-C3	EJ437310	3-J1, 9
AA531900	22-58x	BA554455	2-3x	EC313108	2-C26	EC450527	13-C6	EJ510333	22-76x
AA531911	22-25x	BA554477	1-1x	EC313108	2-C30	EC455354	9-C1	EJ514034	22-82
AA531922	22-37x	BA554488	5-1x	EC313108	10-C1	EC456322	12-C14	EJ514607	22-73
AA531933	20-13x	BA554490	8-1x	EC313244	1-C3	EC456322	13-C11	EJ514822	18-3
AA532012	21-24x	BA554501	10-2x	EC320051	9-C2	EC474671	12-C6	EJ514822	19-3
AA532023	21-23x	BA554512	10-1x	EC321208	6-C13	EC478945	12-C16	EJ514822	22-16x
AA532034	21-25x	BA554523	10-4x	EC321221	6-C7,8	EC478945	15-C7	EJ539447	22-62
AA532045	22-1	BA554523	10-13x	EC321221	6-C11, 12	EC487394	10-C6	EJ539458	22-64
AA532056	22-3	BA554534	10-3	EC321221	7-C9	EC487394	11-C9	EJ539662	1-3
AA532078	22-8	BA554534	10-12x	EC321221	10-C5	EC492142	2-C34, 35	EJ539662	2-7
AA532080	22-10	BA554545	6-1x	EC321221	11-C3	EC492142	2-C37, 38	EJ539662	3-3
AA532091	22-24	BA556312	4-3x	EC321221	11-C5	EC492142	2-C41	EJ539662	4-4
AA532102	22-36	BA556312	20-8x	EC324538	7-C7, 8	EC492142	2-C43,44,45	EJ539662	5-2
AA532170	22-71	BA556323	3-2x	EC329771	2-C25	EC492142	2-C47to51	EJ539662	7-3
AA532181	10-8	BA556323	20-10x	EC329771	12-C5	EC492142	2-C53,54	EJ539662	8-2
		BA556334	17-1x	EC329771	13-C5	EC493323	12-C8	EJ539662	9-2
AA532192	10-9	BA556334	20-17x	EC329782	10-C4	EC493323	15-C3	EJ539662	10-15
AA532214	20-1	BA556345	13-1x	EC329850	2-C52	EC497946	13-C14	EJ539662	12-2
AA532225	20-2x	BA556345	24-50x	EC331705	8-C5	EC539842	10-C8, 9	EJ539662	13-2
AA532236	20-12	BA556402	9-1x	EC331828	1-C1	EC539842	10-C11	EJ539662	15-2
AA532653	20-18x	BA556413	11-1x	EC331828	1-C4	EC539943	11-C1	EJ539662	16-2
AA533338	20-32	BA556424	7-1x	EC331828	9-C8	EC539943	11-C4	EJ539662	17-2
AA533340	21-1	BA556593	2-5x	EC331828	12-C13	EC551002	22-56	EJ539662	18-2
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ZS406416	23-11x								
ZS446422	23-27x								
ZS447761	21-44								
ZW447761	21-68x								
ZS447761	22-83								
ZS447772	10-11								
ZS447772	20-11								
ZS447772	21-4								
ZS447772	22-7								
ZS447772	23-18x								
ZS447805	23-14x								
ZS447840	10-7								
ZS462936	20-44x								
ZS463375	23-20x								
ZS463454	11-5								
ZS513775	23-38								
ZS552622	21-51								
ZS530673	20-37								
ZS530673	22-40								
ZS530684	20-35								
ZS530684	22-42x								
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ZW260122	20-39x								
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ZW273881	22-54x								
ZW273914	21-65x								
ZW273914	22-52x								
ZW348107	11-6x								
ZW348107	20-29x								
ZW348107	21-38x								
ZW426622	11-12x								
ZW434597	3-5								
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ZW493312	23-29x								
ZW510660	22-53x								
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ZW539583	20-42								
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ZW551373	21-64x								
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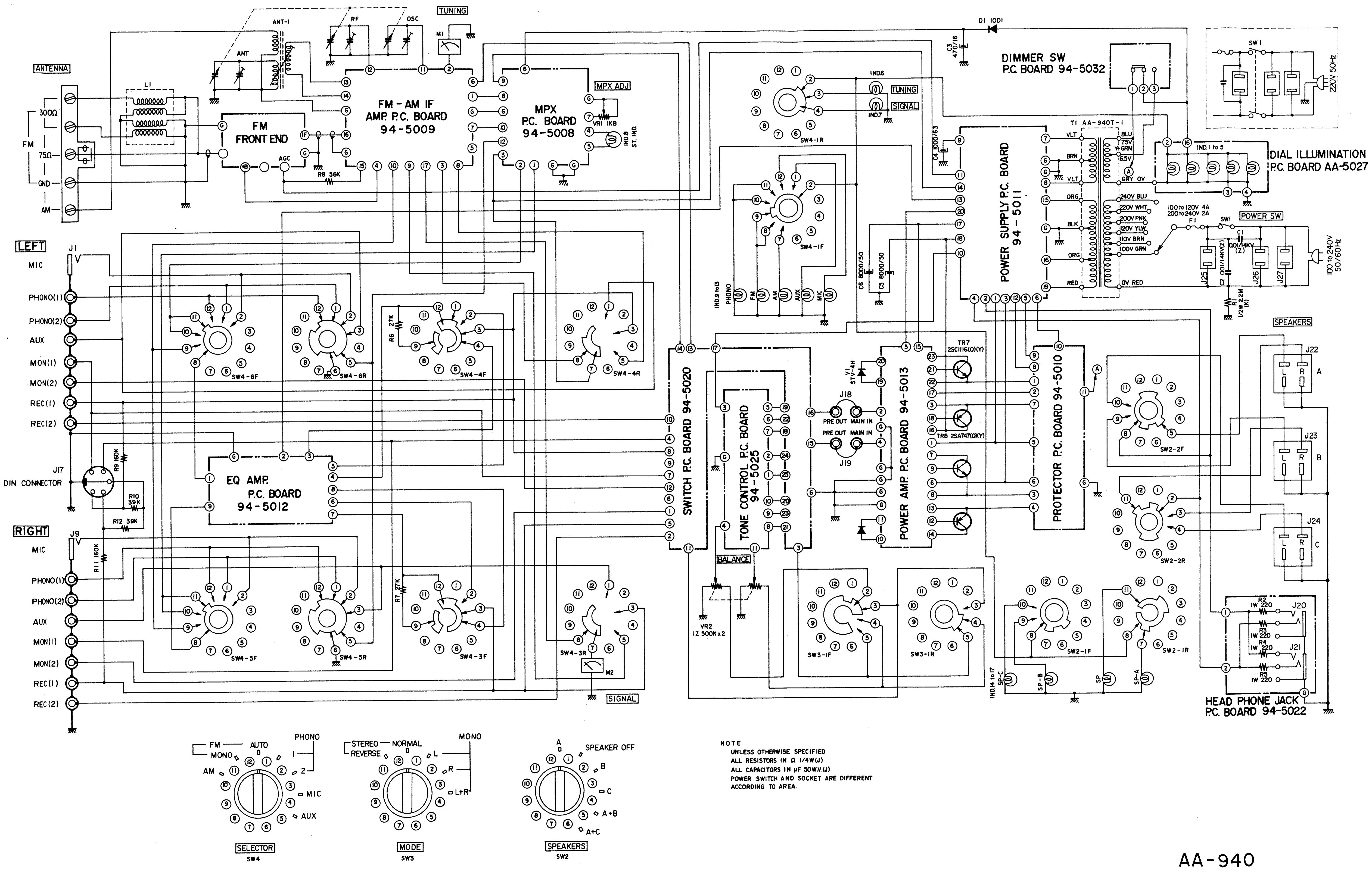
SECTION 3

SCHEMATIC DIAGRAM

1. AA-940 SCHEMATIC DIAGRAM
2. AA-930 SCHEMATIC DIAGRAM
3. AA-920 SCHEMATIC DIAGRAM

AA-940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300Ω
FM
75Ω
GND
AM
L1
ANT
ANT-1
RF
OSC
TUNING
M1
FM FRONT END
AGC
R8 56K
FM-AM IF AMP. P.C. BOARD 94-5009
MPX P.C. BOARD 94-5008
MPX ADJ
VR1 1KB
IND.8 ST. IND.
D1 10D1
C3 470/16
DIMMER SW P.C. BOARD 94-5032
SW1
220V 50Hz
IND.6
TUNING
SIGNAL
IND.7
SW4-1R
C4 1000/6.3
T1 AA-940T-1
VLT
BRN
ORG
BLK
RED
BLU
7.5V
GRN
16.5V
GRY 0V
240V BLU
220V WHT
200V PNK
120V YLW
110V BRN
100V GRN
0V RED
POWER SUPPLY P.C. BOARD 94-5011
IND.1 to 5
DIAL ILLUMINATION P.C. BOARD AA-5027
100 to 120V 4A
200 to 240V 2A
F1
POWER SW
C1 .001/1.4KV (Z)
C2 .001/1.4KV (Z)
R1 1/2W 2.2M (K)
J25
J26
J27
100 to 240V 50/60Hz
SW4-1F
IND.9 to 13
PHONO
FM
AM
AUX
MIC
C6 8000/50
C5 8000/50
LEFT
J1
MIC
PHONO(1)
PHONO(2)
AUX
MON(1)
MON(2)
REC(1)
REC(2)
SW4-6F
SW4-6R
R6 27K
SW4-4F
SW4-4R
SWITCH P.C. BOARD 94-5020
TONE CONTROL P.C. BOARD 94-5025
Y1 STV-3H
J18
PRE OUT
MAIN IN
J19
TR7 2SC1116(O)(Y)
TR8 2SA747(O)(Y)
POWER AMP. P.C. BOARD 94-5013
PROTECTOR P.C. BOARD 94-5010
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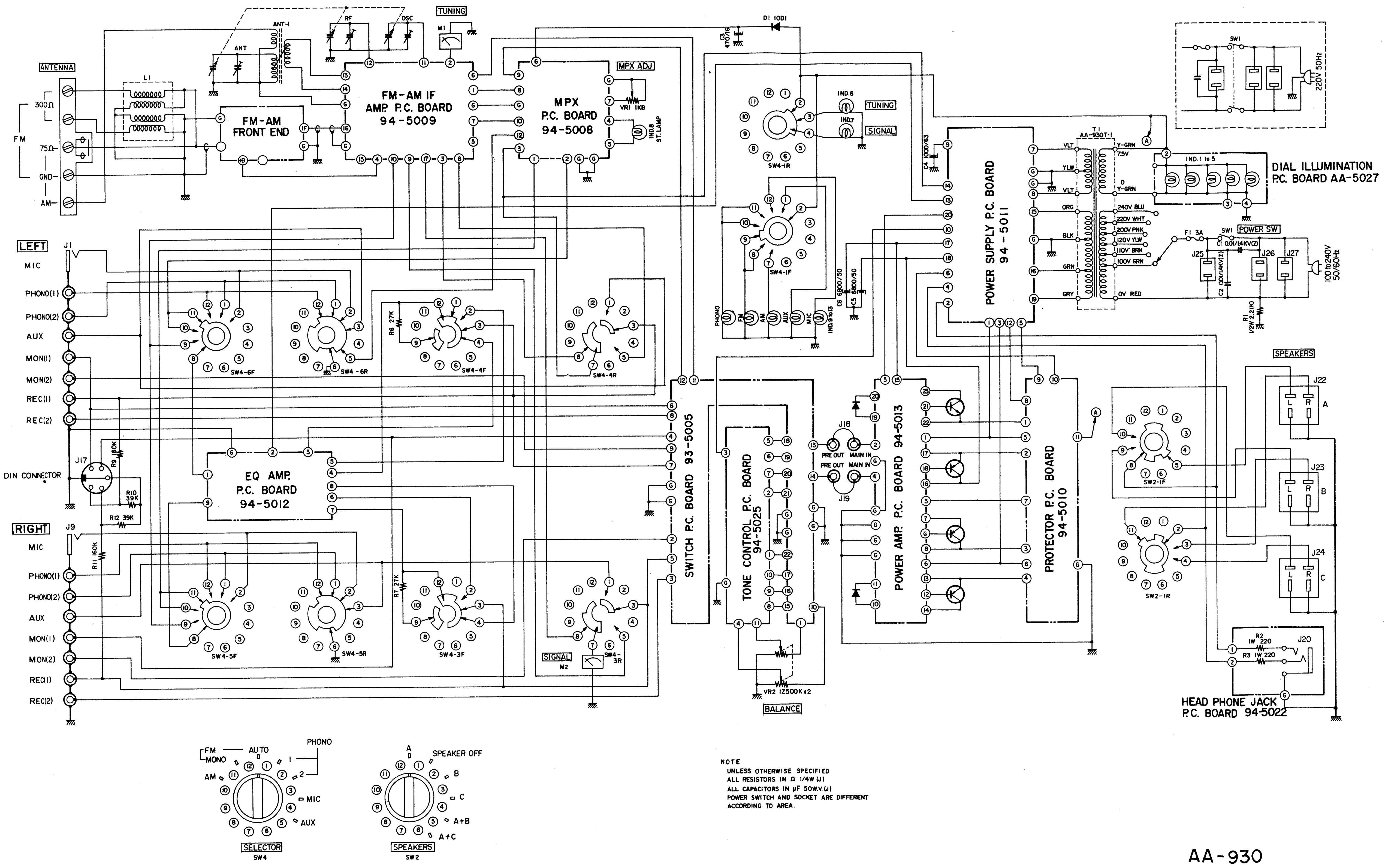
J23
J24
SW2-2F
SW2-2R
J17
DIN CONNECTOR
R9 160K
R10 39K
R12 39K
EQ AMP. P.C. BOARD 94-5012
RIGHT
J9
R11 160K
SW4-5F
SW4-5R
R7 27K
SW4-3F
SW4-3R
M2
SIGNAL
BALANCE
VR2 1Z 500K x 2
SW3-1F
SW3-1R
SW2-1F
SW2-1R
IND.14 to 17
SP-C
SP-B
SP
SP-A
R2 1W 220
R3 1W 220
R4 1W 220
R5 1W 220
J20
J21
HEAD PHONE JACK P.C. BOARD 94-5022
FM
MONO
AUTO
PHONO
AM
MIC
AUX
SELECTOR
SW4
STEREO
REVERSE
NORMAL
MONO
L
R
L+R
MODE
SW3
A
SPEAKER OFF
B
C
A+B
A+C
SPEAKERS
SW2

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
POWER SWITCH AND SOCKET ARE DIFFERENT
ACCORDING TO AREA.

AA-940
SCHEMATIC DIAGRAM
1462212A

AA-930


ANTENNA
300Ω
FM
75Ω
GND
AM
L1
ANT
ANT-1
RF
OSC
TUNING
M1
FM-AM FRONT END
FM-AM IF AMP. P.C. BOARD 94-5009
MPX P.C. BOARD 94-5008
MPX ADJ
VR1 1KB
IND.8 ST. LAMP
D1 10D1
C3 470/16
IND.6
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SW4-1R
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PHONO
FM
AM
AUX
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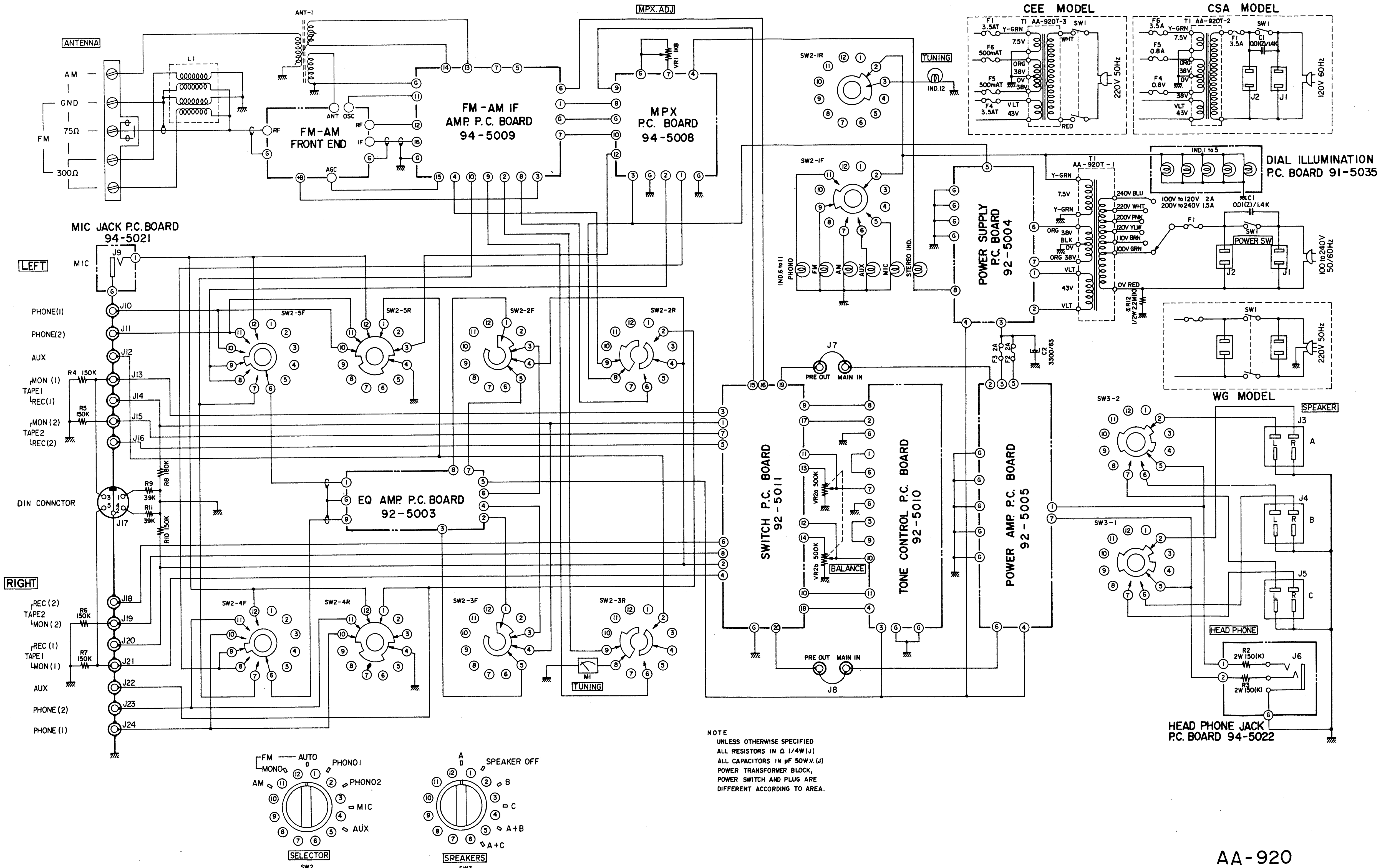
POWER SUPPLY P.C. BOARD 94-5011
T1 AA-930T-1
VLT
YLW
ORG
BLK
GRN
GRY
Y-GRN
7.5V
0
240V BLU
220V WHT
200V PNK
120V YLW
110V BRN
100V GRN
0V RED
IND.1 to 5
DIAL ILLUMINATION P.C. BOARD AA-5027
F1 3A
SW1
POWER SW
J25
J26
J27
C1 0.01/1.4KV(Z)
C2 0.01/1.4KV(Z)
R1 1/2W 2.2(K)
100 to 240V 50/60Hz
220V 50Hz
LEFT
J1
MIC
PHONO(1)
PHONO(2)
AUX
MON(1)
MON(2)
REC(1)
REC(2)
SW4-6F
SW4-6R
SW4-4F
SW4-4R
R6 27K
J17
DIN CONNECTOR
R9 160K
R10 39K
R12 39K
R11 160K
EQ AMP. P.C. BOARD 94-5012
RIGHT
J9
SW4-5F
SW4-5R
SW4-3F
SW4-3R
R7 27K
SIGNAL
M2
SWITCH P.C. BOARD 93-5005
TONE CONTROL P.C. BOARD 94-5025
VR2 1Z500K×2
BALANCE
J18
J19
PRE OUT
MAIN IN
POWER AMP. P.C. BOARD 94-5013
PROTECTOR P.C. BOARD 94-5010
SPEAKERS
J22
J23
J24
A
B
C
L
R
SW2-1F
SW2-1R
R2 1W 220
R3 1W 220
J20
HEAD PHONE JACK P.C. BOARD 94-5022
FM MONO
AUTO
PHONO
AM
MIC
AUX
SELECTOR
SW4
A
SPEAKER OFF
B
C
A+B
A+C
SPEAKERS
SW2

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V. (J)
POWER SWITCH AND SOCKET ARE DIFFERENT
ACCORDING TO AREA.

AA-930
SCHEMATIC DIAGRAM
1462213A

AA-920


ANTENNA
AM
GND
FM
75Ω
300Ω
L1
ANT-1
MPX. ADJ
VR1 1KB
FM-AM FRONT END
ANT
OSC
RF
IF
AGC
FM-AM IF AMP. P.C. BOARD 94-5009
MPX P.C. BOARD 94-5008
SW2-1R
SW2-1F
TUNING
IND.12
IND.6 to 11
PHONO
FM
AM
AUX
MIC
STEREO IND.
CEE MODEL
F1 3.5AT
F6 500mAT
F5 500mAT
F4 3.5AT
T1 AA-920T-3
SW1
Y-GRN
7.5V
WHT
ORG
38V
0V
VLT
43V
RED
220V 50Hz
CSA MODEL
F6 3.5A
F5 0.8A
F4 0.8V
T1 AA-920T-2
F1 3.5A
C1 0.01(Z)/1.4K
J2
J1
120V 60Hz
DIAL ILLUMINATION P.C. BOARD 91-5035
IND.1 to 5
POWER SUPPLY P.C. BOARD 92-5004
T1 AA-920T-1
240V BLU
220V WHT
200V PNK
120V YLW
110V BRN
100V GRN
0V RED
100V to 120V 2A
200V to 240V 1.5A
C1 0.01(Z)/1.4K
F1
SW1
POWER SW
100 to 240V 50/60Hz
R12 1/2W 2.2M(K)
F3 2A
F2 2A
C2 3300/63
SW1
220V 50Hz
WG MODEL
MIC JACK P.C. BOARD 94-5021
LEFT
MIC
J9
PHONE(1)
PHONE(2)
AUX
MON (1)
TAPE1
REC(1)
MON (2)
TAPE2
REC(2)
R4 150K
R5 150K
J10
J11
J12
J13
J14
J15
J16
DIN CONNCTOR
J17
R8 180K
R9 39K
R11 39K
R10 150K
SW2-5F
SW2-5R
SW2-2F
SW2-2R
EQ AMP. P.C. BOARD 92-5003
J7
PRE OUT
MAIN IN
SWITCH P.C. BOARD 92-5011
TONE CONTROL P.C. BOARD 92-5010
VR2a 500K
VR2b 500K
BALANCE
POWER AMP. P.C. BOARD 92-5005
J8
SW3-2
SW3-1
SPEAKER
J3
J4
J5
L
R
A
B
C
HEAD PHONE
R2 2W 150(K)
R3 2W 150(K)
J6
HEAD PHONE JACK P.C. BOARD 94-5022
RIGHT
REC (2)
TAPE2
MON (2)
REC (1)
TAPE1
MON (1)
R6 150K
R7 150K
J18
J19
J20
J21
J22
J23
J24
SW2-4F
SW2-4R
SW2-3F
SW2-3R
M1
TUNING
FM
MONO
AUTO
PHONO1
PHONO2
AM
MIC
AUX
SELECTOR
SW2
A
SPEAKER OFF
B
C
A+B
A+C
SPEAKERS
SW3

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
POWER TRANSFORMER BLOCK,
POWER SWITCH AND PLUG ARE
DIFFERENT ACCORDING TO AREA.

AA-920
SCEMATIC DIAGRAM
1462214A